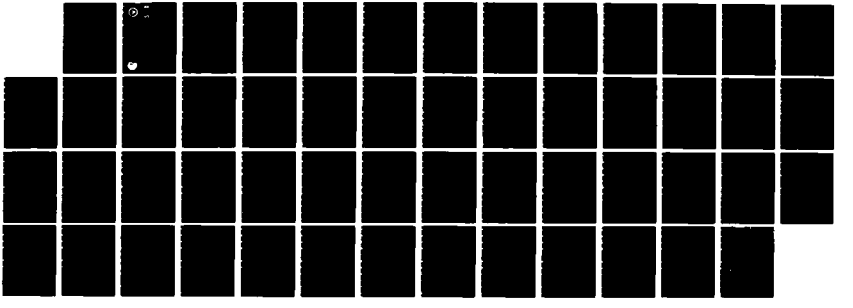
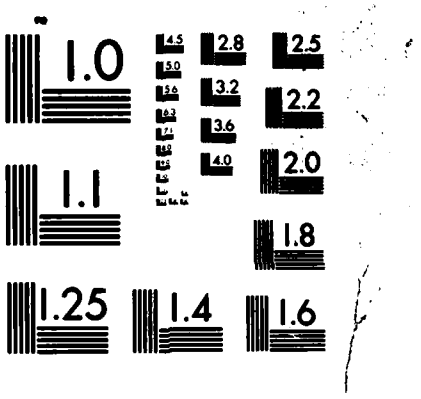
AD-A166 212 ADA (TRADE NAME) COMPILER VALIDATION SUMMARY REPORT: 1/1
AFATL ADA CROSS-COMP (U) SOFTECH INC FAIRBORN OH
06 DEC 85 F33600-84-D-0280

UNCLASSIFIED F/G 9/2 NL





(2)

AD-A166 212

Ada® Joint Program Office

Air Force Armament Laboratory

has successfully validated

AFATL Ada Cross-Compiler, Version 1.0

Authorized Configuration(s)

Hardware: Host(s) and Target(s)

Host: CDC Cyber 170/760

Target: Zilog Z8002 Development Module

Operating System(s)

NOS 2.4 for Host. Development Module Monitor Program for Target.

Tested Under ACVC Version 1.6

Base Configuration: Host and Target as stated above

15 October 1985
Date of Issue

14 October 1986
Expiration Date

Wright-Patterson Air Force Base
Ada Validation Facility

Virginia L. Castor
Director
Ada Joint Program Office

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE	READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER	2. GOVT ACCESSION NO. ADA 166 212	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) Ada* Compiler Validation Summary Report: AFATL Ada Cross-Compiler Version 1.0 CDC Cyber Host/Zilog Z8002 Target	5. TYPE OF REPORT & PERIOD COVERED 6 Dec 1985 to 6 Dec. 1986
	6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) SofTech, Inc.	8. CONTRACT OR GRANT NUMBER(s) F33600-84-D-o280 3285-2-15.2
9. PERFORMING ORGANIZATION NAME AND ADDRESS Ada Validation Facility (ASD/STOL) Computer Operations Division Info. Systems and Technology Center, WP-AFB, OH 45433	10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS Ada Joint Program Office 1211 S. Fern Street, Rm. C-107 Arlington, VA 22202	12. REPORT DATE 6 Dec. 1985
	13. NUMBER OF PAGES 50
14. MONITORING AGENCY NAME & ADDRESS(if different from Controlling Office) Ada Validation Facility	15. SECURITY CLASS. (of this report) Unclassified
	15a. DECLASSIFICATION/DOWNGRADING SCHEDULE

16. DISTRIBUTION STATEMENT (of this Report)

Approved for public release; distribution unlimited

17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)

Unclassified

18. SUPPLEMENTARY NOTES

19. KEY WORDS (Continue on reverse side if necessary and identify by block number)

Validation Summary Report, Ada Validation Facility, Ada Validation Office VSR, AVF, AVO, Ada Compiler, ACVC, ANSI/MIL-STD-1818A (Ada), Ada Compiler Validation Capability, Validation Testing, Ada Joint Program Office (AJPO).

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

The purpose of this Validation Summary Report is to present the results and conclusions of performing standardized tests on the Air Force Armament Laboratory Ada Compiler under the auspices of the AVF at Florida State University, Tallahasee, Fla. according to AVO policies and procedures. The AFATL Ada compiler, Version 1.0, is hosted on the CDC Cyber 170/760 and targeted to the Zilog Z8002 Development Module. ACVC Version 1.6 was used. Operating system NOS 2.4 for Host. Development Module Monitor Program for target.

DD FORM 1 JAN 73 1473 EDITION OF 1 NOV 65 IS OBSOLETE S/N 0102-LF-014-6601

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

AVF Control Number: AVF-VSR-11.1285

Ada® Compiler Validation Summary Report:
AFATL Ada Cross-Compiler
Version 1.0
CDC Cyber Host/Zilog Z8002 Target

(Final)

Contract F33600-84-D-0280
3285-2-15.2

6 December 1985

Prepared for:

Ada Validation Facility (ASD/SIOL)
Computer Operations Division
Information Systems and Technology Center
Wright-Patterson AFB OH 45433

Prepared By

SofTech, Inc.
3100 Presidential Drive
Fairborn OH 45324

®Ada is a registered trademark of the U.S. Government (Ada Joint Program Office).

This report has been reviewed and is approved.

David A. Sykes, Ada Validation Manager
SofTech, Inc.
Fairborn, Ohio

Georgeanne Chitwood, Acting Manager
Ada Validation Facility (ASD/SIOL)
Wright-Patterson Air Force Base, Ohio

Thomas H. Probert, Ph.D.
Institute of Defense Analyses
Alexandria, Virginia

Virginia L. Castor
Director
Ada Joint Program Office
Washington, D.C.

ABSTRACT

The purpose of this Validation Summary Report is to present the results and conclusions of performing standardized tests on the Air Force Armament Laboratory (AFATL) Ada Compiler, developed by Florida State University (FSU). On-site testing was performed 13 through 18 SEP 1985 at Florida State University in Tallahassee FL, under the auspices of the Ada Validation Facility (AVF), according to the Ada Validation Office (AVO) policies and procedures. The AFATL Ada Compiler (Version 1.0) is hosted on the CDC Cyber 170/760 and targeted to the Zilog Z8002 Development Module. The suite of tests known as the Ada Compiler Validation Capability (ACVC), Version 1.6, was used. The ACVC suite of tests is used to validate conformance of the compiler to ANSI/MIL-STD-1815A (Ada). This standard is described in the ANSI Ada Reference Manual, January 1983. Not all tests in the ACVC test suite are applicable to a specific implementation. Also, known test errors in Version 1.6 are present in some tests; these tests were withdrawn. The purpose of the testing is to ensure that the compiler properly implements legal language constructs and that it identifies, rejects from processing, and labels illegal language constructs. The testing also identifies implementation-dependent behavior permitted by the standard. Six classes of tests are used. These tests are designed to perform checks at compile time, during execution, and at link time. The ACVC, Version 1.6, contains 2162 tests, of which 1841 were applicable to this implementation. Of the 1841 applicable tests, 56 were withdrawn due to the occurrence of errors in the tests. Results showed that all of the remaining 1785 valid tests were successfully passed by the AFATL Ada Compiler. A complete list of tests and results is provided in this report. The AVF concluded that the results obtained show acceptable compliance to the January 1983 ANSI Ada Reference Manual.

TABLE OF CONTENTS

CHAPTER 1

INTRODUCTION

1.1 PURPOSE OF THE VALIDATION SUMMARY REPORT

This report describes the results of the validation effort for the following Ada translator:

Host Machine:	CDC Cyber 170/760
Operating System:	NOS 2.4
Target Machine:	Zilog Z8002 Development Module
Operating System:	Development Module Monitor Program
Language Version:	ANSI/MIL-STD-1815A Ada
Translator Name:	AFATL Ada Compiler
Translator Version:	1.0
Validator Version:	1.6

Testing of this translator was conducted by SofTech, Inc. under the supervision of the Ada Validation Facility (AVF), Wright-Patterson Air Force Base OH, at the direction of the Ada Joint Program Office (AJPO). Testing was conducted from 13 SEP 85 through 18 SEP 85 at the Florida State University in Tallahassee FL in accordance with Ada Validation Office (AVO) policies and procedures.

The purpose of this report is to document the results of the testing performed on the compiler. Testing was carried out with specific emphasis on the following factors:

- to identify any language constructs supported by the translator that do not conform to the Ada Standard
- to identify any unsupported language constructs required by the Ada Standard

- to describe implementation-dependent behavior allowed by the Standard

1.2 USE OF THE VALIDATION SUMMARY REPORT

The Ada Validation Office may make full and free public disclosure of this report in accordance with the "Freedom of Information Act" (5 U.S.C. #552). The results of the validation are only for the purpose of satisfying United States Government requirements and apply only to the computers, operating systems, and compiler version identified in this report.

The Ada Compiler Validation Capability is used to determine, insofar as is practical, the degree to which the subject compiler conforms to the Ada Standard. Thus, this report is necessarily discretionary and judgmental. The United States Government does not represent nor warrant that any statement or statements set forth in this report are accurate or complete, or that the subject compiler has no other nonconformances to the Ada Standard. This report is not meant to be used for the purpose of publicizing the findings summarized herein.

Questions regarding this report or the validation tests should be sent to:

Ada Validation Facility (ASD/SIOL)
Computer Operations Division
Information Systems and Technology Center
Wright-Patterson AFB OH 45433-6503

1.3 REFERENCES

Reference Manual for the Ada Programming Language, ANSI/MIL-STD-1815A, February 1983.

Ada Validation Organization: Policies and Procedures, Mitre Corporation, June 1982, PB 83-110601.

Ada Compiler Validation Implementers' Guide, SofTech, Inc., October 1980.

"The Ada Compiler Validation Capability," Computer, Vol. 14, No. 6, June 1981.

Using the ACVC Tests, SofTech, Inc., February 1984.

1.4 DEFINITIONS OF TERMS

Class A tests are passed if no errors are detected at compile time. Although these tests are constructed to be executable, no checks can be performed at run time to see if the test objective has been met; this distinguishes Class A from Class C tests. For example, a Class A test might check that keywords of other languages (other than those already reserved in Ada) are not treated as reserved words by an Ada implementation.

Class B tests are illegal programs. They are passed if all the errors they contain are detected at compile time (or link time) and no legal statements are considered illegal by the compiler.

Class C tests consist of executable self-checking programs. They are passed if they complete execution and do not report failure.

Class D tests are capacity tests. Since there are no firm criteria for the number of identifiers permitted in a compilation, number of units in a library, etc., a compiler may refuse to compile a Class D test. However, if such a test is successfully compiled, it should execute without reporting a failure.

Class E tests provide information about an implementation's interpretation of the Standard. Each test has its own pass/fail criterion.

Class L tests consist of illegal programs whose errors are expected to be detected at link time. They are passed if errors are detected prior to beginning execution of the main program.

CUSTOMER: The agency requesting the validation (Air Force Armament Laboratory, Eglin Air Force Base).

HOST: The computer on which the compiler executes (CDC Cyber 170/760).

ACVC: The Ada Compiler Validation Capability.

AVO: The Ada Validation Office. In the context of this report, the AVO is responsible for setting policies and procedures for compiler validations.

AVF: The Ada Validation Facility, Wright-Patterson Air Force Base. In the context of this report, the AVF is responsible for conducting compiler validations.

TARGET: The computer for which a compiler generates object code (Zilog Z8002 Development Module).

VALIDATION: The process of validating a compiler. The term is used interchangeably with test or compiler test.

VALIDATION TESTS: The generic form used to refer to a set of test programs which evaluate how closely a compiler conforms to its language specification. In this report, the term will be used (unqualified) to mean the ACVC tests.

CHAPTER 2

TEST ANALYSIS

The following table shows that the AFATL Ada Compiler passed all applicable correct tests.

	A	B	C	D	E	L	Total
Passed	61	783	921	12	7	1	1785
Failed	0	0	0	0	0	0	0
Inapplicable	0	4	309	5	1	2	321
Withdrawn	0	13	43	0	0	0	56
Total	61	800	1273	17	8	3	2162

Of the 2162 tests in the suite, 89 tests were processed but were found to be not applicable to the compiler. Another 232 tests were known to be not applicable because the digits value in those tests exceeded this implementation's value of SYSTEM.MAX_DIGITS, 8. These tests were not processed (see section 4.2.6).

In addition, 56 tests were withdrawn from the test suite because they did not conform to ANSI/MIL-STD-1815A, the Ada Language Standard (see section 4.2.5 for details).

2.1 CLASS A TESTING

Class A tests check to ensure that legal Ada programs can be successfully compiled. These tests are executed but contain no executable self-checking capabilities. There were 61 Class A test programs processed in this validation.

2.1.1 Class A Test Procedures

Each Class A test is separately compiled and executed. However, the only purpose of execution is to produce a message indicating that the test

passed.

2.1.2 Class A Test Results

Successful compilation and execution without any error messages indicates that the tests passed. There were no Class A tests that were withdrawn because of errors in the tests. All 61 Class A tests passed.

Two tests were modified before compilation because of their size.

- AE2101A-B.ADA contains ten instantiations of package SEQUENTIAL_IO and ten instantiations of package DIRECT_IO. The compiler is unable to compile a program with that many instantiations. The test was split into four subtests containing five instantiations each. It should be noted that there was no attempt to determine the maximum number of instantiations that the compiler could process.

- AE2101C-B.ADA contains five instantiations of package SEQUENTIAL_IO and five instantiations of package DIRECT_IO. The compiler is unable to compile a program with that many instantiations. The test was split into two subtests containing five instantiations each.

It should be noted that in splitting these tests there was no attempt made to determine the maximum number of instantiations that the compiler could process.

After modification of these two tests, they were compiled and executed with no errors.

2.2 CLASS B TESTING

Class B tests check the ability to recognize illegal language usage. There were 787 Class B tests processed.

2.2.1 Class B Test Procedures

Each Class B test is separately compiled. The resulting test compilation listings are manually examined to see whether every illegal construct in the test is detected. If all errors are not detected, a version of the test is created that contains only undetected illegal constructs. This "split" version is recompiled and the results analyzed. If all errors are still not detected, the revision process is repeated until a revised test contains only a single illegal construct.

A Class B test is considered to fail only if a version of the test containing a single illegal construct is accepted by the compiler (i.e., an illegal construct is not detected) or a version containing no errors is rejected (i.e., a legal construct is rejected).

2.2.2 Class B Test Results

Of the 800 Class B tests, 787 were presented to the compiler of which 4 tests were found to be inapplicable to this implementation (see section 4.2.6); 13 tests were found to be incorrect (i.e., a conforming compiler would have failed the test - see section 4.2.5) and were not run. All 783 applicable Class B tests passed. See section 4.2.7 for further information.

Because all errors were not detected when compiling the original tests, the following 47 tests were modified to ensure that all errors could be detected:

B22003A.ADA	B43201B-B.ADA	B74104A-B.ADA
B32201A-B.ADA	B43201D-B.ADA	B910ABA-B.ADA
B33004A.ADA	B44001A-B.ADA	B95001A.ADA
B36101A-AB.ADA	B44002A-B.ADA	B95007A-AB.ADA
B36102A.ADA	B48002A-B.ADA	B950AHA-B.ADA
B36201A-B.ADA	B48002D-B.ADA	B97101E-AB.ADA
B37201A.ADA	B48003E-B.ADA	B97102A-AB.ADA
B37301A.ADA	B54A01L-AB.ADA	BA1101A-AB.ADA
B37301B.ADA	B54A20A.ADA	BA1101B-B.ADA
B38008A-B.ADA	B54A21A.ADA	BA3006A-B.ADA
B38103A-B.ADA	B54A25A-B.ADA	BA3006B-B.ADA
B38103B-B.ADA	B55A01A-AB.ADA	BA3007B-B.ADA
B38103C-B.ADA	B64001A-B.ADA	BA3008A-B.ADA
B41201A-B.ADA	B67001B-B.ADA	BA3008B-B.ADA
B41202A-B.ADA	B67001C-B.ADA	BA3013A-B.ADA
B43201A-B.ADA	B67001D-B.ADA	

For the modified tests, all illegal constructs were detected.

2.3 CLASS C TESTING

Class C tests check to ensure that legal Ada programs are correctly compiled and executed by an implementation. There were 998 Class C tests processed in this validation. The 232 tests requiring a floating point precision exceeding SYSTEM.MAX_DIGITS were not processed.

2.3.1 Class C Test Procedures

Each Class C test is separately compiled and executed. The tests are self-checking and produce PASS/FAIL messages. Any "failed" tests are individually checked to see if they are correct and if they are applicable to the implementation. Any tests that are inapplicable or that do not conform to the Ada Standard are withdrawn.

2.3.2 Class C Test Results

Of the 1273 Class C tests, 43 tests were withdrawn because of errors in the tests (see section 4.2.5), and 309 were determined to be inapplicable (see section 4.2.6). Included in the inapplicable tests were the 232 tests requiring a floating point precision exceeding SYSTEM.MAX_DIGITS. The 921 applicable tests passed. See section 4.2.7 for further information.

The following two tests were modified before compilation because they were too large to be loaded and executed on the target computer:

- C41203B-B.ADA checks that slices of arrays having dynamic bounds are accessed properly. This test was split into two subtests with approximately the same number of source lines in each.

- C52102D-AB.ADA checks that assignment of overlapping slices are performed correctly for arrays having dynamic bounds. This test was split into two subtests, one to check integer and boolean arrays, and one to check character arrays.

The modifications did not change the way these tests check their objectives. After the modification of these two tests, they were compiled and executed with no errors.

2.4 CLASS D TESTING

Class D tests are executable tests used to check an implementation's compilation and execution capacities. In this validation, 17 Class D tests were used.

2.4.1 Class D Test Procedures

Each Class D test is separately compiled and executed. The tests are self-checking and produce PASS/FAIL messages.

2.4.2 Class D Test Results

Of the 17 Class D tests, 12 passed, and 5 were found to be inapplicable to this implementation (see section 4.2.6). None of the tests were withdrawn. See section 4.2.7 for further information.

2.5 CLASS E TESTING

Class E tests are executable tests that provide information about an implementer's interpretation of the Standard in areas where the Standard permits implementations to differ. Each test has its own PASS/FAIL criterion. In this validation, eight Class E tests were used.

2.5.1 Class E Test Procedures

Each Class E test is separately compiled and executed. The tests are self-checking and produce commentary and PASS/FAIL messages.

2.5.2 Class E Test Results

Of the eight Class E tests, seven passed, and one was found to be inapplicable for this implementation (see section 4.2.6). See section 4.2.7 for further information.

2.6 CLASS L TESTING

Class L tests check to ensure that incomplete or illegal Ada programs involving multiple, separately compiled source files are not allowed to execute. There were three test programs processed in this validation attempt.

2.6.1 Class L Test Procedures

Each Class L test is separately compiled, and execution is attempted. The tests produce FAIL messages if executed.

2.6.2 Class L Test Results

Of the three Class L tests, two were found to be inapplicable to this implementation (see section 4.2.6); the remaining test was passed.

2.7 SUPPORT UNITS

Three support packages are compiled to be used by the rest of the ACVC tests. The CHECK_FILE package is used by many of the chapter 14 tests to check the contents of a text file. The REPORT package provides the mechanism for reporting pass/fail/nonapplicable results of executable tests. The VAR_STRINGS package defines types and routines for manipulating varying-length character strings.

2.7.1 Support Unit Test Procedures

The CZ tests check the functions and procedures specified by the three support packages.

2.7.2 Support Unit Test Results

All three support packages compiled and passed. Of the seven CZ tests, one was found to be not applicable, and six executed successfully.

CHAPTER 3

COMPILER NONCONFORMANCES

There were no nonconformances to the Ada Standard detected in this validation. The AFATL Ada Compiler passed all applicable correct tests.

CHAPTER 4

ADDITIONAL INFORMATION

This section describes in more detail how the validation was conducted.

4.1 COMPILER PARAMETERS

Certain tests do not apply to all Ada compilers; for example, compilers are not required to support several predefined floating point types. Therefore, tests must be selected based on the predefined types an implementation actually supports. In addition, some tests are parameterized according to the maximum input source line length allowed by an implementation, the maximum floating point precision supported, etc. The following implementation-dependent parameters were used in performing this validation:

- maximum lexical element length: 72
- maximum digits value for floating point types: 8
- SYSTEM.MIN_INT: -2_147_483_647
- SYSTEM.MAX_INT: 2_147_483_647
- predefined numeric types: FLOAT, INTEGER, SHORT_INTEGER, LONG_INTEGER
- INTEGER'FIRST: -2_147_483_648
- INTEGER'LAST: 2_147_483_647
- source character set: CDC 6-bit display code
- extended ASCII characters: ""
- non-ASCII char type: (NON_NULL)

- TEXT_IO.COUNT'LAST: 32_767
- TEXT_IO.FIELD'LAST: 2_147_483_647
- illegal external file name1: ILLEGAL_^^_FILE_NAME
- illegal external file name2: ILLEGAL_FILE_NAME2_THAT_IS_TOO_LONG
- SYSTEM.PRIORITY'FIRST: 0
- SYSTEM.PRIORITY'LAST: 127

4.2 TESTING INFORMATION

Tests were compiled and executed at Florida State University in Tallahassee FL. The tests were executed on a Zilog Z8002 operating under the Zilog Development Module Monitor Program using procedures provided by Florida State University and reviewed by the validation team.

4.2.1 Pre-Test Procedures

Prior to traveling to Tallahassee to run the validation suite, the validation team performed a pre-validation review of the AFATL Ada Compiler. The validation team received computer listings and a magnetic tape from Florida State University containing the ACVC Version 1.6 test results of the compiler. The validation team examined the test results from each test and determined the acceptability of the test results.

Prior to testing, appropriate values for the compiler-dependent parameters were determined. These values were used to adapt tests that depend on the values. Magnetic tapes containing the adapted tests were prepared and taken to the testing site.

Any ACVC test that was determined to contain an error was withdrawn from the test suite and therefore was not used in testing this compiler.

4.2.2 Control Files

Florida State University provided host command procedures that compiled tests automatically. Procedures to download and execute tests on the target computers were also provided.

4.2.3 Test Procedures

Two ANSI format test tapes containing ACVC Version 1.6 were taken on-site by the validation team. These tapes were mounted on the system tape drive and loaded to disk on the host computer using a utility program developed by Florida State University for that purpose. Files read from the tapes were installed in source libraries using the host operating system's MODIFY utility. One source library was created for each set of tests for a chapter in the Ada Reference Manual. The libraries contained 100-column source records although the maximum input line length supported by the compiler is 72 columns. The extra columns were included to facilitate compilation of the tests that check maximum lexical element length.

Once all tests had been placed into MODIFY libraries, a single batch job stream was started to compile the tests. The tests were compiled in chapter order, with the support packages being compiled first. A program library was created for each test and packages TEXT_IO and REPORT were copied into it before the test was compiled. As groups of compilations finished, executable tests were downloaded to the target computer and executed. Three target computers were used to execute the tests.

Because of the limited memory available on the target computer, the full implementation of package TEXT_IO was used only for the tests that check the operation of the support packages and the tests for chapter 14. An abbreviated version of TEXT_IO that fully implemented only those operations needed by package REPORT was used for all other chapters.

The withdrawn tests were not run.

4.2.4 Test Analysis Procedures

On completion of testing, all results were analyzed for failed Class A, C, D, E, or L programs, and all Class B compilation results were individually analyzed. Analysis procedures are described for each test class in chapter 2.

4.2.5 Description Of Errors In Withdrawn Tests

The following tests have been withdrawn from Version 1.6 of the Ada Compiler Validation Capability (ACVC) for the reasons given below.

- C45521A through C45521Y (25 tests): Cases C and I define the model interval for the result too narrowly.
- C48005C: Lines 38 and 63 of this test should check that the value of the designated object is null.

- C64103C: This test should raise CONSTRAINT_ERROR during the conversion at line 179.

- C64103D: This test involves a CONSTRAINT_ERROR vs. NUMERIC_ERROR issue that is to be resolved by the Language Maintenance Committee.

- C64105E and C64105F: For case E, ensure that non-null dimensions of formal and actual parameters belong to both index subtypes.

- B66001A: This test checks (in section G) that a function without parameters, which is equivalent to an enumeration literal in the same declarative region, is a redeclaration and as such is forbidden. According to section 8.3, paragraph 17, of the Ada Standard, the explicit declaration of such a function is allowed if an enumeration literal is considered to be an implicitly declared predefined operation. The Standard is not clear on this point. This issue has been referred to the Language Maintenance Committee for resolution.

- B67001A: Line 414 is missing the "BEGIN NULL; END;" needed to complete the block beginning at line 389 (case H).

- B67004A: The default name for a formal generic equality function should not be allowed to be "/=" unless an expanded name is used.

- C93005B, C93005C: These tests contain a declaration of an integer variable whose initialization is solely for the purpose of raising an exception. Some compilers will not raise this exception due to their optimization.

- C93007B: This test should check for PROGRAM_ERROR rather than TASKING_ERROR.

- CA1003B: A compilation that contains an illegal compilation unit may now be rejected as a whole.

- CA1011A: The test objective is incorrect.

- CA1108A: A pragma ELABORATE is needed for OTHER_PKG at line 25.

- CA1108B: A pragma ELABORATE is needed for FIRST_PKG at line 39 and for LATER_PKG at line 49.

- CA2009B and CA2009E,: The repetition of the main procedure after the subunit body makes the subunit body obsolete; therefore, an attempt to execute the main procedure will fail.

- CA2009F: The file CA2009F2 is missing from this test suite.

- BC1013A: The declaration of equality in lines 86-87 is illegal because the parameter type T declared in line 11 is not a limited type.

- BC3204A through BC3204D (4 tests), BC3205A through BC3205D (4 tests), and BC3405B: Instantiations with types that have default discriminants are now legal.

- CE3603A: A string argument is null and no attempt to read it is made so END_ERROR should not be raised.

- CE3604A: In cases 5, 8, 9, and 11, SKIP_LINE is called only if the end of the output string has not been met.

- CE3704M: A superfluous SKIP_LINE causes the input and output operations to be out of synchronization.

4.2.6 Description Of Inapplicable Tests

The following 321 tests were found to be not applicable for the reasons given below.

- Test B26005A is not applicable because the host character set does not support the non-graphic ASCII characters used in this test. The host character set uses the CDC 6-bit display code.

- Tests C24113C and C24113D contain literal values that are longer than the maximum input line length supported by the compiler.

- Tests C24113E through C24113Y (21 tests) use floating-point precision that exceeds the maximum of eight digits supported by the implementation.

- Test C26008A uses lower-case alphabetic characters which are not available on the host computer system.

- Tests C34001F, C35702A, and B86001CP use SHORT_FLOAT which is not supported by this compiler.

- Tests C34001G, C35702B, and B86001CQ use LONG_FLOAT which is not supported by this compiler.

- C35705E through C35705Y, C35706E through C35706Y, C35707E through C35707Y, C35708E through C35708Y, C35802E through C35802Y, C45241E through C45241Y, C45321E through C45321Y, C45421E through C45421Y, C45424E through C45424Y, and C45621E through C45621Z ((9 x 21) + 22 = 211 tests) use floating-point precision that exceeds the maximum of eight digits supported by the implementation.

- Tests D4A002B and D4A004B use universal integer calculations that exceed the maximum supported by this compiler.

- Test C55B16A makes use of an enumeration representation clause that contains non-contiguous values which is not supported by this compiler.

- Tests D64005E, D64005F, and D64005G exceed the capacity of the target computer. STORAGE_ERROR is raised during execution.

- Test B86001DT requires a predefined numeric type other than those defined by the Ada language in package STANDARD. There is no such type for this implementation.

- Test C87B62B uses a length clause to specify the collection size for an access type which is not supported by this compiler.

- Test C96005B checks implementations for which the smallest and largest values in type DURATION are different from the smallest and largest values in DURATION's base type. This is not the case for this implementation.

- Tests LA3004A and LA3004B are inapplicable because the implementation does not obey pragma INLINE for subprograms.

- CE2107B and CE2110B are inapplicable because multiple access to external files is not supported. In fact, the operations found in TEXT_IO are the only input and output operations supported by the implementation.

- Tests CE2102D, CE2102E, CE2107A, CE2110A, CE2201B, CE2201C, CE2202A, CE2401A, CE2401B, CE2401C, CE2401E, CE3114A, and CE3114B are inapplicable because although each produces a FAILED message, the test was not structured to handle an exception that was legally raised for an attempted file operation.

- Test CE2103A, CE2103B, CE2104A, CE2104B, CE2111A, CE2111B, CE2111C, CE2401F, CE2404A, CE2405B, CE2406A, CE2408A, CE2409A, CE2410A, CE3102B, CE3107A, CE3108A, CE3108B, CE3112B, CE3115A, and EE3102C contain input or output operations that legally raise the exception USE_ERROR or STATUS_ERROR, but that the test does not handle.

- Tests CE3301B, CE3305A, CE3605D, CE3704F, CE3804C, CE3804G, CE3804K, CE3804M, CE3806E, and CE3905L are too large to be loaded onto the target computer. In all cases, the test programs are such that they would be inapplicable if they could be loaded and executed as a result of an exception being raised for an OPEN or CREATE operation. Since the behavior of the compiler for these operations has been demonstrated in other tests, it is unnecessary to split these tests so that they can be loaded and executed.

- Tests CE2111D, CE2201A, CE2401D, CE3203A, CE3402B, CE3402C, CE3405A, CE3405D, CE3409C, CE3410C, CE3605E, CE3606A, CE3606B, CE3704N, CE3706F, CE3804I, CE3806A, CE3806D, CE3906A, CE3906C, CE3906E, and CE3906F raise STORAGE_ERROR during execution. In all cases, the tests use input or output operations that would legally raise an exception that makes the test inapplicable. On the basis of behavior that has been demonstrated in other tests for this chapter, these tests are considered inapplicable.

4.2.7 Information Derived From The Tests

Processing of the following tests indicated support as described below for a variety of implementation options examined by the tests.

- B26005A: Non-graphic characters are not available in the CDC 6-bit display code used to represent Ada source programs on the host computer.

- E24101A: When a based literal whose value exceeds SYSTEM.MAX_INT, the compiler raises NUMERIC_ERROR at execution time.

- E36202A: For an array having a dimension greater than INTEGER'LAST and a component which is a null BOOLEAN array, NUMERIC_ERROR is raised when the 'LENGTH attributed is computed. No exception is raised when the type declaration is elaborated.

- E36202B: For an array having a dimension greater than SYSTEM.MAX_INT and a component which is a null BOOLEAN array, no exception is raised when the 'LENGTH attributed is computed or when the type declaration is elaborated.

- E38104A: An incomplete type with discriminants can be used in an access type definition and can be constrained either at that point or in later subtype indications.

- D4A002B and D4A004B: The implementation does not support 64-bit universal integer calculations.

- E43212B: All choices are evaluated before subaggregates are checked for identical bounds.

- C52104X: In an assignment statement, the entire expression is evaluated before CONSTRAINT_ERROR is raised if the expression's subtype is not compatible with the target's subtype.

- C52103X: A packed BOOLEAN array of length INTEGER'LAST#+#3 results in NUMERIC_ERROR being raised when the array type is declared.

- D55A03H: The compiler successfully compiles units containing at least 65 levels of loop nesting.

- D56001B: The compiler successfully compiles units containing at least 65 levels of block nesting.

- E52103Y: A null array with one dimension of length greater than INTEGER'LAST results in NUMERIC_ERROR when array objects are assigned.

- LA3004A and LA3004B: Pragma INLINE is not supported for subprograms.

- AE2102C: SEQUENTIAL_IO and DIRECT_IO can be instantiated with unconstrained array types and record types with discriminants.

- Tests for Chapter 14: Operations in package TEXT_IO are supported while those in SEQUENTIAL_IO and DIRECT_IO are not supported, but raise appropriate exceptions.

CHAPTER 5

SUMMARY AND CONCLUSIONS

The Ada Validation Facility identified 1930 of the 2162 tests of the ACVC Version 1.6 as being applicable to the validation of the AFATL Ada Compiler hosted on the CDC Cyber 170/760 and targeted to the Zilog Z8002. Of these, 56 were withdrawn due to test errors, and 89 more were determined to be inapplicable after they were processed. The compiler passed the remaining 1785 tests.

The AVF considers these results to show acceptable compliance to the January 1983 ANSI Ada Reference Manual.

APPENDIX A

COMPLETE LIST OF TESTS AND RESULTS

This Appendix gives a complete list of the ACVC test files used in the validation attempt, presented in order by ACVC Implementers' Guide (Ada Reference Manual) section and objective.

To obtain more information about a test itself, the reader may refer to the test name which indicates the class of the test and which test objective in the ACVC Implementers' Guide applies to the test. The name is interpreted as follows, where the first column below indicates the character position in the name and the second column, the meaning of that position:

1	Class of test (A, B, C, D, E, L).
2	Implementers' Guide chapter number (in hexadecimal).
3	Implementers' Guide section number within a chapter (in hexadecimal).
4	Implementers' Guide subsection number or letter.
5, 6	Implementers' Guide Test Objective number (two-digit decimal number).
7	Test sequence letter (A-Z).
8	Compilation sequence digit or letter (0-9,A-Z).
9	When there are several compilation units, "M" indicates the main program.

Characters 8 and 9 are only present for tests that consist of several separately compiled units. A series of separately compiled units is counted as one test for reporting purposes. The eighth character indicates the order in which the units are to be compiled (unit 0 is compiled first). The ninth character is only present for the main program and is always "M".

The suffix -AB means the test was written prior to release of the ANSI Standard and is also valid for the version of Ada published in July 1980. The suffix -B means the test was written specifically for the ANSI Standard. Tests without a suffix have not yet had their names revised to -AB.

A file name ending with .TST means the test depends on one or more of the implementation-dependent parameters listed in section 4.1. A file name ending with .DEP means the test is not necessarily applicable to all

implementations.

The result for each file is also given, where:

P = passed.
F = failed.
N/A = not applicable to this implementation.
W = withdrawn due to test errors.
C = compiled without error.

Indented names are separately compiled units (subtests) of the test under which they appear. A sequence of indented subtest names comprise one test for reporting purposes.

The results for each test file were as follows:

Support Units

VAR_STRINGS_SPEC.ADA	P
VAR_STRINGS_BODY.ADA	P
REPORT_SPEC-AB.ADA	P
REPORT_BODY-B.ADA	P
CHECK_FILE-B.ADA	P
CZ1101A-AB.ADA	P
CZ1102A-AB.ADA	P
CZ1103A-B.ADA	N/A
CZ1201A-AB.ADA	P
CZ1201B-AB.ADA	P
CZ1201C-AB.ADA	P
CZ1201D-AB.ADA	P

Chapter 2

A21001A.ADA	P	B23002A.ADA	P	C24113C-B.DEP	N/A
A22002A.ADA	P	B23003D-AB.TST	P	C24113D-B.DEP	N/A
A26004A.TST	P	B23003E-AB.TST	P	C24113E-B.DEP	N/A
A29002A-B.ADA	P	B23003F-AB.TST	P	C24113F-B.DEP	N/A
A29002B-B.ADA	P	B23004A.ADA	P	C24113G-B.DEP	N/A
A29002C-B.ADA	P	B23004B.ADA	P	C24113H-B.DEP	N/A
A29002D-B.ADA	P	B24001A.ADA	P	C24113I-B.DEP	N/A
A29002E-B.ADA	P	B24001B.ADA	P	C24113J-B.DEP	N/A
A29002F-B.ADA	P	B24001C.ADA	P	C24113K-B.DEP	N/A
A29002G-B.ADA	P	B24005A.ADA	P	C24113L-B.DEP	N/A
A29002H-B.ADA	P	B24005B.ADA	P	C24113M-B.DEP	N/A
A29002I-B.ADA	P	B24104A.ADA	P	C24113N-B.DEP	N/A
A29002J-B.ADA	P	B24104B.ADA	P	C24113O-B.DEP	N/A
B22001A-AB.TST	P	B24104C.ADA	P	C24113P-B.DEP	N/A
B22001B-AB.TST	P	B26002A.ADA	P	C24113Q-B.DEP	N/A
B22001C-AB.TST	P	B26005A.ADA	N/A	C24113R-B.DEP	N/A
B22001D-AB.TST	P	B29001A-B.ADA	P	C24113S-B.DEP	N/A
B22001E-AB.TST	P	C23001A.ADA	P	C24113T-B.DEP	N/A
B22001F-AB.TST	P	C23003A.TST	P	C24113U-B.DEP	N/A
B22001G-AB.TST	P	C24002A.ADA	P	C24113V-B.DEP	N/A
B22001H-AB.ADA	P	C24002B.ADA	P	C24113W-B.DEP	N/A
B22001I-AB.TST	P	C24002C.ADA	P	C24113X-B.DEP	N/A
B22001J-AB.TST	P	C24003A.TST	P	C24113Y-B.DEP	N/A
B22001K-AB.TST	P	C24003B.TST	P	C26002B.ADA	P
B22001L-AB.TST	P	C24003C.TST	P	C26006A-AB.ADA	P
B22001M-AB.TST	P	C24102A.ADA	P	C26008A-AB.ADA	N/A
B22001N-AB.TST	P	C24102B.ADA	P	C27001A-AB.ADA	P
B22003A.ADA	P	C24102C.ADA	P	C27002A-B.ADA	P
B22004A.ADA	P	C24103A.ADA	P	D29002K-B.ADA	P
B22004B.ADA	P	C24113A-B.DEP	P	E24101A-B.TST	P
B22004C.ADA	P	C24113B-B.DEP	P		

Chapter 3

A32203B-B.ADA	P	B37004G-B.ADA	P	C34001Q-B.ADA	P
A32203C-B.ADA	P	B37101A.ADA	P	C34001R-B.ADA	P
A32203D-B.ADA	P	B37201A.ADA	P	C34001T-B.ADA	P
A34008B-B.ADA	P	B37202A.ADA	P	C34002A-B.ADA	P
A38106D-B.ADA	P	B37202B.ADA	P	C34002B-B.ADA	P
A38106E-B.ADA	P	B37203A.ADA	P	C35104A.ADA	P
B32103A-AB.ADA	P	B37204A-AB.ADA	P	C35504A-AB.ADA	P
B32106A-B.ADA	P	B37205A-AB.ADA	P	C35504B-B.ADA	P
B32201A-B.ADA	P	B37301A.ADA	P	C35505A.ADA	P
B32202A-B.ADA	P	B37301B.ADA	P	C35505B.ADA	P
B32202B-B.ADA	P	B37302A-AB.ADA	P	C35508A-AB.ADA	P
B32202C-B.ADA	P	B37303A.ADA	P	C35508B-B.ADA	P
B33001A.ADA	P	B37307B-AB.ADA	P	C35702A-AB.DEP	N/A
B33002A.ADA	P	B37309B-AB.ADA	P	C35702B-AB.DEP	N/A
B33003A.ADA	P	B37310B-B.ADA	P	C35703A.ADA	P
B33003B-AB.ADA	P	B37311A-AB.ADA	P	C35704A-AB.ADA	P
B33003C-AB.ADA	P	B38001A.ADA	P	C35704B-AB.ADA	P
B33004A.ADA	P	B38003A-AB.ADA	P	C35704C-AB.ADA	P
B33006A-B.ADA	P	B38008A-B.ADA	P	C35704D-AB.ADA	P
B34001S-AB.ADA	P	B38008B-AB.ADA	P	C35705A-B.DEP	P
B34008A-B.ADA	P	B38101A-B.ADA	P	C35705B-B.DEP	P
B35101A.ADA	P	B38101B-AB.ADA	P	C35705C-B.DEP	P
B35301A.ADA	P	B38103A-B.ADA	P	C35705D-B.DEP	P
B35501A.ADA	P	B38103B-B.ADA	P	C35705E-B.DEP	N/A
B35506A.ADA	P	B38103C-B.ADA	P	C35705F-B.DEP	N/A
B35506B.ADA	P	B38103C0	C	C35705G-B.DEP	N/A
B35701A.TST	P	B38103C1	C	C35705H-B.DEP	N/A
B35709A.ADA	P	B38103C2	C	C35705I-B.DEP	N/A
B35A03A-B.ADA	P	B38103C3M	C	C35705J-B.DEP	N/A
B36101A-AB.ADA	P	B38105A-AB.ADA	P	C35705K-B.DEP	N/A
B36102A.ADA	P	B38105B-AB.ADA	P	C35705L-B.DEP	N/A
B36103A.ADA	P	B38106A-B.ADA	P	C35705M-B.DEP	N/A
B36105A-B.ADA	P	B38106B-B.ADA	P	C35705N-B.DEP	N/A
B36171A-B.ADA	P	C32107B-B.ADA	P	C35705O-B.DEP	N/A
B36171B-B.ADA	P	C32203A-B.ADA	P	C35705P-B.DEP	N/A
B36171C-AB.ADA	P	C34001A-B.ADA	P	C35705Q-B.DEP	N/A
B36171D-AB.ADA	P	C34001B-B.ADA	P	C35705R-B.DEP	N/A
B36171E-AB.ADA	P	C34001C-B.ADA	P	C35705S-B.DEP	N/A
B36171F-AB.ADA	P	C34001D-B.DEP	P	C35705T-B.DEP	N/A
B36171G-AB.ADA	P	C34001E-B.DEP	P	C35705U-B.DEP	N/A
B36171H-AB.ADA	P	C34001F-B.DEP	N/A	C35705V-B.DEP	N/A
B36171I-AB.ADA	P	C34001G-B.DEP	N/A	C35705W-B.DEP	N/A
B36201A-B.ADA	P	C34001H-B.ADA	P	C35705X-B.DEP	N/A
B37003A-AB.ADA	P	C34001I-B.ADA	P	C35705Y-B.DEP	N/A
B37004A-B.ADA	P	C34001K-B.ADA	P	C35706A-B.DEP	P
B37004B-B.ADA	P	C34001L-B.ADA	P	C35706B-B.DEP	P
B37004C-B.ADA	P	C34001M-B.ADA	P	C35706C-B.DEP	P
B37004D-B.ADA	P	C34001N-B.ADA	P	C35706D-B.DEP	P
B37004E-B.ADA	P	C34001O-B.ADA	P	C35706E-B.DEP	N/A
B37004F-B.ADA	P	C34001P-B.ADA	P	C35706F-B.DEP	N/A

C35706G-B.DEP	N/A	C35708G-B.DEP	N/A	C36205B.ADA	P
C35706H-B.DEP	N/A	C35708H-B.DEP	N/A	C36205C.ADA	P
C35706I-B.DEP	N/A	C35708I-B.DEP	N/A	C36205D.ADA	P
C35706J-B.DEP	N/A	C35708J-B.DEP	N/A	C36205E.ADA	P
C35706K-B.DEP	N/A	C35708K-B.DEP	N/A	C36205F.ADA	P
C35706L-B.DEP	N/A	C35708L-B.DEP	N/A	C36205G.ADA	P
C35706M-B.DEP	N/A	C35708M-B.DEP	N/A	C36205H.ADA	P
C35706N-B.DEP	N/A	C35708N-B.DEP	N/A	C36205I.ADA	P
C35706O-B.DEP	N/A	C35708O-B.DEP	N/A	C36205J.ADA	P
C35706P-B.DEP	N/A	C35708P-B.DEP	N/A	C36205K.ADA	P
C35706Q-B.DEP	N/A	C35708Q-B.DEP	N/A	C36301A-B.ADA	P
C35706R-B.DEP	N/A	C35708R-B.DEP	N/A	C36301B-AB.ADA	P
C35706S-B.DEP	N/A	C35708S-B.DEP	N/A	C36302A.ADA	P
C35706T-B.DEP	N/A	C35708T-B.DEP	N/A	C36303A.ADA	P
C35706U-B.DEP	N/A	C35708U-B.DEP	N/A	C36304A-B.ADA	P
C35706V-B.DEP	N/A	C35708V-B.DEP	N/A	C36305A-AB.ADA	P
C35706W-B.DEP	N/A	C35708W-B.DEP	N/A	C37005A.ADA	P
C35706X-B.DEP	N/A	C35708X-B.DEP	N/A	C37007A-AB.ADA	P
C35706Y-B.DEP	N/A	C35708Y-B.DEP	N/A	C37008A-B.ADA	P
C35707A-B.DEP	P	C35711A-B.ADA	P	C37008B-B.ADA	P
C35707B-B.DEP	P	C35802A-B.DEP	P	C37011A-B.ADA	P
C35707C-B.DEP	P	C35802B-B.DEP	P	C37012A-AB.ADA	P
C35707D-B.DEP	P	C35802C-B.DEP	P	C37013A-AB.ADA	P
C35707E-B.DEP	N/A	C35802D-B.DEP	P	C37103A-AB.ADA	P
C35707F-B.DEP	N/A	C35802E-B.DEP	N/A	C37105A.ADA	P
C35707G-B.DEP	N/A	C35802F-B.DEP	N/A	C37208A-B.ADA	P
C35707H-B.DEP	N/A	C35802G-B.DEP	N/A	C37208B-AB.ADA	P
C35707I-B.DEP	N/A	C35802H-B.DEP	N/A	C37209A.ADA	P
C35707J-B.DEP	N/A	C35802I-B.DEP	N/A	C37304A-AB.ADA	P
C35707K-B.DEP	N/A	C35802J-B.DEP	N/A	C37305A.ADA	P
C35707L-B.DEP	N/A	C35802K-B.DEP	N/A	C37306A.ADA	P
C35707M-B.DEP	N/A	C35802L-B.DEP	N/A	C37307A-AB.ADA	P
C35707N-B.DEP	N/A	C35802M-B.DEP	N/A	C37309A-AB.ADA	P
C35707O-B.DEP	N/A	C35802N-B.DEP	N/A	C37310A-AB.ADA	P
C35707P-B.DEP	N/A	C35802O-B.DEP	N/A	C38004A.ADA	P
C35707Q-B.DEP	N/A	C35802P-B.DEP	N/A	C38005A-B.ADA	P
C35707R-B.DEP	N/A	C35802Q-B.DEP	N/A	C38006A-B.ADA	P
C35707S-B.DEP	N/A	C35802R-B.DEP	N/A	C38007A-B.ADA	P
C35707T-B.DEP	N/A	C35802S-B.DEP	N/A	C38102A-AB.ADA	P
C35707U-B.DEP	N/A	C35802T-B.DEP	N/A	C38102B-B.ADA	P
C35707V-B.DEP	N/A	C35802U-B.DEP	N/A	C38102C-B.ADA	P
C35707W-B.DEP	N/A	C35802V-B.DEP	N/A	E36202A-B.ADA	P
C35707X-B.DEP	N/A	C35802W-B.DEP	N/A	E36202B-B.ADA	P
C35707Y-B.DEP	N/A	C35802X-B.DEP	N/A	E38104A-B.ADA	P
C35708A-B.DEP	P	C35802Y-B.DEP	N/A		
C35708B-B.DEP	P	C35904A-B.ADA	P		
C35708C-B.DEP	P	C36172A-B.ADA	P		
C35708D-B.DEP	P	C36174A-B.ADA	P		
C35708E-B.DEP	N/A	C36204A-B.ADA	P		
C35708F-B.DEP	N/A	C36205A.ADA	P		

Chapter 4

B41101A-B.ADA	P	B45208A-AB.ADA	P	C41303F-B.ADA	P
B41101C-AB.ADA	P	B45208B-B.ADA	P	C41303G-B.ADA	P
B41102A-AB.ADA	P	B45208C-B.ADA	P	C41303I-B.ADA	P
B41102B-B.ADA	P	B45208G-AB.ADA	P	C41303J-B.ADA	P
B41102C-B.ADA	P	B45208H-B.ADA	P	C41303K-B.ADA	P
B41201A-B.ADA	P	B45208I-B.ADA	P	C41303M-B.ADA	P
B41201C.ADA	P	B45208M-AB.ADA	P	C41303N-B.ADA	P
B41202A-B.ADA	P	B45208N-AB.ADA	P	C41303O-B.ADA	P
B41202B-AB.ADA	P	B45208S-AB.ADA	P	C41303Q-B.ADA	P
B41202C-B.ADA	P	B45208T-AB.ADA	P	C41303R-B.ADA	P
B41202D-B.ADA	P	B45261A-AB.ADA	P	C41303S-B.ADA	P
B41302A-AB.ADA	P	B45261B-AB.ADA	P	C41303U-B.ADA	P
B41302B-AB.ADA	P	B45261C-AB.ADA	P	C41303V-B.ADA	P
B42004A-B.ADA	P	B45261D-AB.ADA	P	C41303W-B.ADA	P
B43101A-B.ADA	P	B45402A.ADA	P	C41304A-B.ADA	P
B43201A-B.ADA	P	B45522A.ADA	P	C41306A-B.ADA	P
B43201B-B.ADA	P	B45533A-AB.ADA	P	C41306B-B.ADA	P
B43201C-B.ADA	P	B48001A-B.ADA	P	C41306C-B.ADA	P
B43201D-B.ADA	P	B48001B-B.ADA	P	C42005A-B.ADA	P
B43202A-B.ADA	P	B48002A-B.ADA	P	C42006A-B.ADA	P
B43202B-B.ADA	P	B48002B-B.ADA	P	C43103A-B.ADA	P
B43202C-B.ADA	P	B48002C-B.ADA	P	C43103B-B.ADA	P
B43203A-B.ADA	P	B48002D-B.ADA	P	C43107A-B.ADA	P
B43203B-B.ADA	P	B48002E-B.ADA	P	C43205A-B.ADA	P
B44001A-B.ADA	P	B48002F-B.ADA	P	C43205B-B.ADA	P
B44002A-B.ADA	P	B48002G-B.ADA	P	C43205C-B.ADA	P
B44002B-B.ADA	P	B48003A-B.ADA	P	C43205D-B.ADA	P
B44002C.ADA	P	B48003B-B.ADA	P	C43205E-B.ADA	P
B45102A-AB.ADA	P	B48003C-B.ADA	P	C43205F-B.ADA	P
B45203A.ADA	P	B48003D-B.ADA	P	C43205G-B.ADA	P
B45203B-AB.ADA	P	B48003E-B.ADA	P	C43205H-B.ADA	P
B45205A-AB.ADA	P	B4A006A-B.ADA	P	C43205I-B.ADA	P
B45206A-AB.ADA	P	B4A016A.ADA	P	C43205J-B.ADA	P
B45206B-B.ADA	P	C41101D-B.ADA	P	C43205K-B.ADA	P
B45207A-AB.ADA	P	C41103A-B.ADA	P	C43206A-B.ADA	P
B45207B-B.ADA	P	C41103B-B.ADA	P	C43207A-B.ADA	P
B45207C-B.ADA	P	C41105A-B.ADA	P	C43207B-B.ADA	P
B45207D-B.ADA	P	C41106A-B.ADA	P	C43207C-B.ADA	P
B45207G-B.ADA	P	C41107A-AB.ADA	P	C43207D-B.ADA	P
B45207H-B.ADA	P	C41201D-B.ADA	P	C43208A-B.ADA	P
B45207I-B.ADA	P	C41203A-B.ADA	P	C43208B-B.ADA	P
B45207J-B.ADA	P	C41203B-B.ADA	P	C43210A-B.ADA	P
B45207M-AB.ADA	P	C41204A.ADA	P	C43211A-B.ADA	P
B45207N-AB.ADA	P	C41205A-B.ADA	P	C43212A-B.ADA	P
B45207O-AB.ADA	P	C41206A.ADA	P	C43212C-B.ADA	P
B45207P-B.ADA	P	C41301A-B.ADA	P	C43213A-B.ADA	P
B45207S-AB.ADA	P	C41303A-B.ADA	P	C43214A-B.ADA	P
B45207T-AB.ADA	P	C41303B-B.ADA	P	C43214B-B.ADA	P
B45207U-AB.ADA	P	C41303C-B.ADA	P	C43214C-B.ADA	P
B45207V-B.ADA	P	C41303E-B.ADA	P	C43214D-B.ADA	P

C43214E-B.ADA	P	C45241X-B.DEP	N/A	C45421J-B.DEP	N/A
C43214F-B.ADA	P	C45241Y-B.DEP	N/A	C45421K-B.DEP	N/A
C43215A-B.ADA	P	C45264A-B.ADA	P	C45421L-B.DEP	N/A
C43215B-B.ADA	P	C45274A-AB.ADA	P	C45421M-B.DEP	N/A
C45101A.ADA	P	C45274B-AB.ADA	P	C45421N-B.DEP	N/A
C45101B.ADA	P	C45274C-AB.ADA	P	C45421O-B.DEP	N/A
C45101C.ADA	P	C45303A-B.ADA	P	C45421P-B.DEP	N/A
C45101E.ADA	P	C45321A-B.DEP	P	C45421Q-B.DEP	N/A
C45101G-AB.ADA	P	C45321B-B.DEP	P	C45421R-B.DEP	N/A
C45101H-AB.ADA	P	C45321C-B.DEP	P	C45421S-B.DEP	N/A
C45101I.ADA	P	C45321D-B.DEP	P	C45421T-B.DEP	N/A
C45103A-AB.ADA	P	C45321E-B.DEP	N/A	C45421U-B.DEP	N/A
C45103B-AB.ADA	P	C45321F-B.DEP	N/A	C45421V-B.DEP	N/A
C45103C-AB.ADA	P	C45321G-B.DEP	N/A	C45421W-B.DEP	N/A
C45104A.ADA	P	C45321H-B.DEP	N/A	C45421X-B.DEP	N/A
C45105A-AB.ADA	P	C45321I-B.DEP	N/A	C45421Y-B.DEP	N/A
C45105B-B.ADA	P	C45321J-B.DEP	N/A	C45424A-B.DEP	P
C45106A.ADA	P	C45321K-B.DEP	N/A	C45424B-B.DEP	P
C45201A.ADA	P	C45321L-B.DEP	N/A	C45424C-B.DEP	P
C45201B.ADA	P	C45321M-B.DEP	N/A	C45424D-B.DEP	P
C45202A-AB.ADA	P	C45321N-B.DEP	N/A	C45424E-B.DEP	N/A
C45210A.ADA	P	C45321O-B.DEP	N/A	C45424F-B.DEP	N/A
C45220A.ADA	P	C45321P-B.DEP	N/A	C45424G-B.DEP	N/A
C45220B.ADA	P	C45321Q-B.DEP	N/A	C45424H-B.DEP	N/A
C45220C.ADA	P	C45321R-B.DEP	N/A	C45424I-B.DEP	N/A
C45220D.ADA	P	C45321S-B.DEP	N/A	C45424J-B.DEP	N/A
C45220E-B.ADA	P	C45321T-B.DEP	N/A	C45424K-B.DEP	N/A
C45241A-B.DEP	P	C45321U-B.DEP	N/A	C45424L-B.DEP	N/A
C45241B-B.DEP	P	C45321V-B.DEP	N/A	C45424M-B.DEP	N/A
C45241C-B.DEP	P	C45321W-B.DEP	N/A	C45424N-B.DEP	N/A
C45241D-B.DEP	P	C45321X-B.DEP	N/A	C45424O-B.DEP	N/A
C45241E-B.DEP	N/A	C45321Y-B.DEP	N/A	C45424P-B.DEP	N/A
C45241F-B.DEP	N/A	C45342A-AB.ADA	P	C45424Q-B.DEP	N/A
C45241G-B.DEP	N/A	C45343A-AB.ADA	P	C45424R-B.DEP	N/A
C45241H-B.DEP	N/A	C45345A-AB.ADA	P	C45424S-B.DEP	N/A
C45241I-B.DEP	N/A	C45345B-AB.ADA	P	C45424T-B.DEP	N/A
C45241J-B.DEP	N/A	C45345C-AB.ADA	P	C45424U-B.DEP	N/A
C45241K-B.DEP	N/A	C45345D-AB.ADA	P	C45424V-B.DEP	N/A
C45241L-B.DEP	N/A	C45401A.ADA	P	C45424W-B.DEP	N/A
C45241M-B.DEP	N/A	C45401B-AB.ADA	P	C45424X-B.DEP	N/A
C45241N-B.DEP	N/A	C45413A-B.ADA	P	C45424Y-B.DEP	N/A
C45241O-B.DEP	N/A	C45421A-B.DEP	P	C45505A-B.ADA	P
C45241P-B.DEP	N/A	C45421B-B.DEP	P	C45521A-B.DEP	W
C45241Q-B.DEP	N/A	C45421C-B.DEP	P	C45521B-B.DEP	W
C45241R-B.DEP	N/A	C45421D-B.DEP	P	C45521C-B.DEP	W
C45241S-B.DEP	N/A	C45421E-B.DEP	N/A	C45521D-B.DEP	W
C45241T-B.DEP	N/A	C45421F-B.DEP	N/A	C45521E-B.DEP	W
C45241U-B.DEP	N/A	C45421G-B.DEP	N/A	C45521F-B.DEP	W
C45241V-B.DEP	N/A	C45421H-B.DEP	N/A	C45521G-B.DEP	W
C45241W-B.DEP	N/A	C45421I-B.DEP	N/A	C45521H-B.DEP	W

C45521I-B.DEP	W	C45621L.DEP	N/A	C48008A-B.ADA	P
C45521J-B.DEP	W	C45621M.DEP	N/A	C48008B-B.ADA	P
C45521K-B.DEP	W	C45621N.DEP	N/A	C48008C-B.ADA	P
C45521L-B.DEP	W	C45621O.DEP	N/A	C48008D-B.ADA	P
C45521M-B.DEP	W	C45621P.DEP	N/A	C48009A-B.ADA	P
C45521N-B.DEP	W	C45621Q.DEP	N/A	C48009B-B.ADA	P
C45521O-B.DEP	W	C45621R.DEP	N/A	C48009C-B.ADA	P
C45521P-B.DEP	W	C45621S.DEP	N/A	C48009D-B.ADA	P
C45521Q-B.DEP	W	C45621T.DEP	N/A	C48009E-B.ADA	P
C45521R-B.DEP	W	C45621U.DEP	N/A	C48009F-B.ADA	P
C45521S-B.DEP	W	C45621V.DEP	N/A	C48009G-B.ADA	P
C45521T-B.DEP	W	C45621W.DEP	N/A	C48009H-B.ADA	P
C45521U-B.DEP	W	C45621X.DEP	N/A	C48009I-B.ADA	P
C45521V-B.DEP	W	C45621Y.DEP	N/A	C48009J-B.ADA	P
C45521W-B.DEP	W	C45621Z.DEP	N/A	C48010A-B.ADA	P
C45521X-B.DEP	W	C48004A-B.ADA	P	C48012A-B.ADA	P
C45521Y-B.DEP	W	C48004B-B.ADA	P	C4A001A.ADA	P
C45526A-B.ADA	P	C48004C-B.ADA	P	C4A003A.ADA	P
C45621A.DEP	P	C48004D-B.ADA	P	C4A010A-B.ADA	P
C45621B.DEP	P	C48004E-B.ADA	P	C4A011A.ADA	P
C45621C.DEP	P	C48004F-B.ADA	P	C4A013A.ADA	P
C45621D.DEP	P	C48005A-B.ADA	P	D4A002A-AB.ADA	P
C45621E.DEP	N/A	C48005B-B.ADA	P	D4A002B.ADA	N/A
C45621F.DEP	N/A	C48005C-B.ADA	W	D4A004A-AB.ADA	P
C45621G.DEP	N/A	C48006A-B.ADA	P	D4A004B.ADA	N/A
C45621H.DEP	N/A	C48006B-B.ADA	P	E43211B-B.ADA	P
C45621I.DEP	N/A	C48007A-B.ADA	P	E43212B-B.ADA	P
C45621J.DEP	N/A	C48007B-B.ADA	P		
C45621K.DEP	N/A	C48007C-B.ADA	P		

Chapter 5

A54B01A-B.ADA	P	B54A21A-B.ADA	P	B57001A-AB.ADA	P
A54B02A-B.ADA	P	B54A25A-B.ADA	P	B57001B-B.ADA	P
A55B12A-AB.ADA	P	B54A27B-AB.ADA	P	B57001C-AB.ADA	P
A55B13A-AB.ADA	P	B54A27D-AB.ADA	P	B57001D-AB.ADA	P
A55B14A-AB.ADA	P	B54B01B-B.TST	P	B58001A-AB.ADA	P
B51001A-AB.ADA	P	B54B01C-B.ADA	P	B58002A-B.ADA	P
B51003A-AB.ADA	P	B54B02B-B.ADA	P	B58002B-AB.ADA	P
B51004B-B.ADA	P	B54B02C-B.ADA	P	B58002C-AB.ADA	P
B51004C-B.ADA	P	B54B02D-B.ADA	P	B58003A-B.ADA	P
B52002A-B.ADA	P	B54B04A-AB.ADA	P	B58003B-AB.ADA	P
B52002B-AB.ADA	P	B54B04B-AB.ADA	P	B59001A-AB.ADA	P
B52002C-AB.ADA	P	B54B05A-AB.ADA	P	B59001C-AB.ADA	P
B52002D-AB.ADA	P	B55A01A-AB.ADA	P	B59001D-AB.ADA	P
B52002E-AB.ADA	P	B55A01B-AB.ADA	P	B59001E-AB.ADA	P
B52002F-B.ADA	P	B55A01C-AB.ADA	P	B59001F-AB.ADA	P
B52002G-AB.ADA	P	B55A01D-AB.ADA	P	B59001G-AB.ADA	P
B52003A-AB.ADA	P	B55A01E-AB.ADA	P	B59001H-AB.ADA	P
B52003B-AB.ADA	P	B55A01F-AB.ADA	P	B59001I-AB.ADA	P
B52003C-AB.ADA	P	B55A01G-AB.ADA	P	C51002A-AB.ADA	P
B52004A-B.ADA	P	B55A01H-AB.ADA	P	C51004A-B.ADA	P
B52004B-AB.ADA	P	B55A01I-AB.ADA	P	C52001A-B.ADA	P
B52004C-AB.ADA	P	B55A01J-AB.ADA	P	C52001B-AB.ADA	P
B52004D-AB.DEP	P	B55A01K-AB.ADA	P	C52001C-AB.ADA	P
B52004E-AB.DEP	P	B55A01L-AB.ADA	P	C52005A-AB.ADA	P
B52006A-AB.ADA	P	B55A01M-AB.ADA	P	C52005B-AB.ADA	P
B53001A-AB.ADA	P	B55A01N-AB.ADA	P	C52005C-AB.ADA	P
B53001B-AB.ADA	P	B55A01O-AB.ADA	P	C52005D-AB.ADA	P
B53002A-AB.ADA	P	B55A01P-AB.ADA	P	C52005E-AB.ADA	P
B53002B-AB.ADA	P	B55A01Q-AB.ADA	P	C52005F-AB.ADA	P
B53003A-AB.ADA	P	B55A01R-AB.ADA	P	C52007A-B.ADA	P
B53004A-AB.ADA	P	B55A01S-AB.ADA	P	C52008A-AB.ADA	P
B53009A-AB.ADA	P	B55A01T-AB.ADA	P	C52008B-B.ADA	P
B53009B-AB.ADA	P	B55A01U-AB.ADA	P	C52009A-B.ADA	P
B53009C-AB.ADA	P	B55A01V-AB.ADA	P	C52009B-B.ADA	P
B54A01A-AB.ADA	P	B55B01A-AB.ADA	P	C52010A-AB.ADA	P
B54A01B-AB.ADA	P	B55B01B-AB.ADA	P	C52011A-B.ADA	P
B54A01C-AB.ADA	P	B55B09B-AB.ADA	P	C52011B-AB.ADA	P
B54A01D-AB.ADA	P	B55B09C-AB.DEP	P	C52012A-AB.ADA	P
B54A01E-AB.ADA	P	B55B09D-AB.DEP	P	C52012B-AB.ADA	P
B54A01F-AB.ADA	P	B55B12B-B.ADA	P	C52013A-B.ADA	P
B54A01G-AB.ADA	P	B55B12C-AB.ADA	P	C52101A-AB.ADA	P
B54A01H-AB.ADA	P	B55B14B-B.ADA	P	C52102A-AB.ADA	P
B54A01I-AB.ADA	P	B55B18A-B.ADA	P	C52102B-AB.ADA	P
B54A01J-AB.ADA	P	B56001A-AB.ADA	P	C52102C-AB.ADA	P
B54A01K-AB.ADA	P	B56001C-AB.ADA	P	C52102D-AB.ADA	P
B54A01L-AB.ADA	P	B56001D-AB.ADA	P	C52103A-AB.ADA	P
B54A05A.ADA	P	B56001E-AB.ADA	P	C52103B-AB.ADA	P
B54A05B.ADA	P	B56001F-AB.ADA	P	C52103C-AB.ADA	P
B54A08A-B.ADA	P	B56001G-AB.ADA	P	C52103F-AB.ADA	P
B54A20A.ADA	P	B56001H-AB.ADA	P	C52103G-AB.ADA	P

C52103H-AB.ADA	P	C54A07A-AB.ADA	P	C57002A-AB.ADA	P
C52103K-AB.ADA	P	C54A22A-AB.ADA	P	C57003A-AB.ADA	P
C52103L-AB.ADA	P	C54A23A-B.ADA	P	C57004A-AB.ADA	P
C52103M-AB.ADA	P	C54A24A-AB.ADA	P	C57004B-AB.ADA	P
C52103P-AB.ADA	P	C54A24B.ADA	P	C57004C-AB.ADA	P
C52103Q-AB.ADA	P	C54A26A.ADA	P	C57005A-B.ADA	P
C52103R-AB.ADA	P	C54A27A-AB.ADA	P	C58004A-AB.ADA	P
C52103S-B.ADA	P	C54A41A.ADA	P	C58004B-AB.ADA	P
C52103X-B.ADA	P	C54A42A.ADA	P	C58004C-AB.ADA	P
C52104A-AB.ADA	P	C54A42B.ADA	P	C58004D-B.ADA	P
C52104B-AB.ADA	P	C54A42C.ADA	P	C58004F-AB.ADA	P
C52104C-AB.ADA	P	C54A42D.ADA	P	C58004G-AB.ADA	P
C52104F-AB.ADA	P	C54A42E.ADA	P	C58005A-AB.ADA	P
C52104G-AB.ADA	P	C54A42F.ADA	P	C58005B-AB.ADA	P
C52104H-AB.ADA	P	C54A42G.ADA	P	C58005H-AB.ADA	P
C52104K-AB.ADA	P	C55B03A-AB.ADA	P	C58006A-AB.ADA	P
C52104L-AB.ADA	P	C55B04A-AB.ADA	P	C58006B-AB.ADA	P
C52104M-AB.ADA	P	C55B05A-AB.ADA	P	C59001B-AB.ADA	P
C52104P-AB.ADA	P	C55B06A-AB.ADA	P	C59002A-AB.ADA	P
C52104Q-AB.ADA	P	C55B06B-AB.ADA	P	C59002B-AB.ADA	P
C52104R-AB.ADA	P	C55B07A-AB.DEP	P	C59002C-B.ADA	P
C52104X-B.ADA	P	C55B07B-AB.DEP	P	D55A03A-AB.ADA	P
C52104Y-B.ADA	P	C55B08A-B.ADA	P	D55A03B-AB.ADA	P
C53004B-B.ADA	P	C55B09A-AB.ADA	P	D55A03C-AB.ADA	P
C53005A-AB.ADA	P	C55B15A-B.ADA	P	D55A03D-AB.ADA	P
C53005B-AB.ADA	P	C55B16A-AB.DEP	N/A	D55A03E-AB.ADA	P
C53006A-AB.ADA	P	C55C01A-B.ADA	P	D55A03F-AB.ADA	P
C53006B-AB.ADA	P	C55C02A-AB.ADA	P	D55A03G-AB.ADA	P
C53007A-AB.ADA	P	C55C02B-AB.ADA	P	D55A03H-AB.ADA	P
C53008A-AB.ADA	P	C55C03A-AB.ADA	P	D56001B-AB.ADA	P
C54A03A.ADA	P	C55C03B-AB.ADA	P	E52103Y-B.ADA	P
C54A04A-AB.ADA	P	C55D01A-AB.ADA	P		
C54A06A-AB.ADA	P	C56002A-AB.ADA	P		

Chapter 6

A62006D-B.ADA	P	B63102A-B.ADA	P	C64103B-B.ADA	P
A63202A-AB.ADA	P	B63103A-B.ADA	P	C64103C-B.ADA	W
B61001A-AB.ADA	P	B64001A-B.ADA	P	C64103D-B.ADA	W
B61001B-AB.ADA	P	B64002A-B.ADA	P	C64103E-B.ADA	P
B61001C-AB.ADA	P	B64002C-B.ADA	P	C64103F-B.ADA	P
B61001D-AB.ADA	P	B64003A-B.ADA	P	C64104A-AB.ADA	P
B61001E-AB.ADA	P	B64004A-B.ADA	P	C64104B-AB.ADA	P
B61001F-AB.ADA	P	B64004B-B.ADA	P	C64104C-AB.ADA	P
B61001G-AB.ADA	P	B64004C-B.ADA	P	C64104D-AB.ADA	P
B61001H-AB.ADA	P	B64004D-B.ADA	P	C64104E-AB.ADA	P
B61001I-AB.ADA	P	B64004E-B.ADA	P	C64104F-AB.ADA	P
B61001J-AB.ADA	P	B64004F-B.ADA	P	C64104G-AB.ADA	P
B61001K-AB.ADA	P	B64006A-B.ADA	P	C64104H-B.ADA	P
B61001L-AB.ADA	P	B64101A-B.ADA	P	C64104I-B.ADA	P
B61001M-AB.ADA	P	B64201A-B.ADA	P	C64104J-B.ADA	P
B61001N-AB.ADA	P	B65001A-B.ADA	P	C64104K-AB.ADA	P
B61001O-AB.ADA	P	B65002A-AB.ADA	P	C64104L-AB.ADA	P
B61001P-AB.ADA	P	B65002B-AB.ADA	P	C64104M-AB.ADA	P
B61001Q-AB.ADA	P	B66001A-B.ADA	W	C64104N-B.ADA	P
B61001R-AB.ADA	P	B66001B-B.ADA	P	C64104O-B.ADA	P
B61001S-AB.ADA	P	B66001C-B.ADA	P	C64105A-AB.ADA	P
B61001T-AB.ADA	P	B67001A-B.ADA	W	C64105B-AB.ADA	P
B61001U-AB.ADA	P	B67001B-B.ADA	P	C64105C-AB.ADA	P
B61001V-AB.ADA	P	B67001C-B.ADA	P	C64105D-AB.ADA	P
B61001W-AB.ADA	P	B67001D-B.ADA	P	C64105E-AB.ADA	W
B61003A-AB.ADA	P	B67001E-B.ADA	P	C64105F-AB.ADA	W
B61006A-B.ADA	P	B67001F-B.ADA	P	C64106A-B.ADA	P
B61011A-B.ADA	P	B67001G-B.ADA	P	C64106B-B.ADA	P
B61012A-B.ADA	P	B67004A-B.ADA	W	C64106C-B.ADA	P
B62001A-AB.ADA	P	C61003B-AB.ADA	P	C64106D-B.ADA	P
B62001B-AB.ADA	P	C61008A-B.ADA	P	C64107A-B.ADA	P
B62001C-AB.ADA	P	C61009A-B.ADA	P	C64108A-B.ADA	P
B62001D-AB.ADA	P	C61010A-AB.ADA	P	C64201B-B.ADA	P
B62006B-B.ADA	P	C62002A-B.ADA	P	C64201C-B.ADA	P
B62006C-B.ADA	P	C62003A-B.ADA	P	C64202A-B.ADA	P
B62006E-B.ADA	P	C62003B-B.ADA	P	C65003A-B.ADA	P
B62006F-B.ADA	P	C62004A-AB.ADA	P	C65003B-B.ADA	P
B63001A-AB.ADA	P	C62006A-B.ADA	P	C66002A-B.ADA	P
B63001B-AB.ADA	P	C63004A-AB.ADA	P	C66002C-AB.ADA	P
B63005A-AB.ADA	P	C64002B-B.ADA	P	C66002D-AB.ADA	P
B63005B-AB.ADA	P	C64004G-B.ADA	P	C66002E-AB.ADA	P
B63005C-AB.ADA	P	C64005A-B.ADA	P	C66002F-AB.ADA	P
B63009A-B.ADA	P	C64005B-B.ADA	P	C66002G-B.ADA	P
B63009B-B.ADA	P	C64005C-B.ADA	P	C67002A-B.ADA	P
B63009C-B.ADA	P	C64005D-B.ADA	P	C67002B-B.ADA	P
B63009C0	C	C64005D0M	C	C67002C-B.ADA	P
B63009C1	C	C64005DA	C	C67002D-B.ADA	P
B63009C2	C	C64005DB	C	C67002E-B.ADA	P
B63009C3	C	C64005DC	C	C67003A-B.ADA	P
B63010A-AB.ADA	P	C64103A-B.ADA	P	C67003B-B.ADA	P

C67003C-AB.ADA	P	D64005F0M	N/A	D64005GD	N/A
C67003D-B.ADA	P	D64005FA	N/A	D64005GE	N/A
C67003E-AB.ADA	P	D64005FB	N/A	D64005GF	N/A
C67005A-B.ADA	P	D64005FC	N/A	D64005GG	N/A
C67005B-B.ADA	P	D64005FD	N/A	D64005GH	N/A
C67005C-B.ADA	P	D64005FE	N/A	D64005GI	N/A
C67005D-B.ADA	P	D64005FF	N/A	D64005GJ	N/A
D64005E-B.ADA	N/A	D64005FG	N/A	D64005GK	N/A
D64005E0M	N/A	D64005FH	N/A	D64005GL	N/A
D64005EA	N/A	D64005FI	N/A	D64005GM	N/A
D64005EB	N/A	D64005FJ	N/A	D64005GN	N/A
D64005EC	N/A	D64005G-B.ADA	N/A	D64005GO	N/A
D64005ED	N/A	D64005G0M	N/A	D64005GP	N/A
D64005EE	N/A	D64005GA	N/A	D64005GQ	N/A
D64005EF	N/A	D64005GB	N/A		
D64005F-B.ADA	N/A	D64005GC	N/A		

Chapter 7

A71002A-AB.ADA	P	B71001Q-AB.ADA	P	B74105A-B.ADA	P
A71004A-AB.ADA	P	B71001R-AB.ADA	P	B74105C-B.ADA	P
A72001A-AB.ADA	P	B71001T-AB.ADA	P	B74201A-AB.ADA	P
A73001I-AB.ADA	P	B71001U-AB.ADA	P	B74205A-B.ADA	P
A73001J-AB.ADA	P	B71001V-AB.ADA	P	B74205B-B.ADA	P
A74006A-AB.ADA	P	B71001W-AB.ADA	P	B74207A-B.ADA	P
A74105B-B.ADA	P	B71002B-AB.ADA	P	B74301A-B.ADA	P
A74106A-AB.ADA	P	B73001A-AB.ADA	P	B74304A-B.ADA	P
A74106B-AB.ADA	P	B73001B-AB.ADA	P	B74304B-B.ADA	P
A74106C-AB.ADA	P	B73001C-B.ADA	P	B74304C-B.ADA	P
A74205E-B.ADA	P	B73001D-B.ADA	P	B74401A-B.ADA	P
A74205F-B.ADA	P	B73001E-AB.ADA	P	B74401B-B.ADA	P
B71001A-AB.ADA	P	B73001F-AB.ADA	P	B74409A-B.ADA	P
B71001B-AB.ADA	P	B73001G-B.ADA	P	C72001B-AB.ADA	P
B71001C-AB.ADA	P	B73001H-B.ADA	P	C73002A-B.ADA	P
B71001D-AB.ADA	P	B73006A-AB.ADA	P	C74206A-B.ADA	P
B71001E-AB.ADA	P	B74001A-AB.ADA	P	C74207B-B.ADA	P
B71001F-AB.ADA	P	B74001B-AB.ADA	P	C74209A-AB.ADA	P
B71001G-AB.ADA	P	B74003A-B.ADA	P	C74210A-AB.ADA	P
B71001H-AB.ADA	P	B74101A-B.ADA	P	C74211A-B.ADA	P
B71001I-AB.ADA	P	B74103A-B.ADA	P	C74211B-B.ADA	P
B71001J-AB.ADA	P	B74103B-B.ADA	P	C74302A-B.ADA	P
B71001K-AB.ADA	P	B74103C-B.ADA	P	C74305A-B.ADA	P
B71001L-AB.ADA	P	B74103D-B.ADA	P	C74305B-B.ADA	P
B71001M-AB.ADA	P	B74103E-B.ADA	P	C74402A-B.ADA	P
B71001N-AB.ADA	P	B74103F-B.ADA	P	C74402B-B.ADA	P
B71001O-AB.ADA	P	B74103G-B.ADA	P	C74409B-B.ADA	P
B71001P-AB.ADA	P	B74104A-B.ADA	P		

CHAPTER 8

A83A02A.ADA	P	B86001BK-B.ADA	P	C86002A1	C
A83A02B.ADA	P	B86001BL-B.ADA	P	C86002A2M	C
A83A06A-B.ADA	P	B86001BM-B.ADA	P	C86002B.ADA	P
A83C01C.ADA	P	B86001BO-B.ADA	P	C86002B1	C
A83C01D.ADA	P	B86001BU-B.ADA	P	C86002B2M	C
A83C01E.ADA	P	B86001BV-B.ADA	P	C86003A-B.ADA	P
A83C01F.ADA	P	B86001BW-B.ADA	P	C87A05A-B.ADA	P
A83C01G.ADA	P	B86001BX-B.ADA	P	C87A05B-B.ADA	P
A83C01H.ADA	P	B86001C0M-AB.DEP	P	C87B02A-B.ADA	P
A83C01I.ADA	P	B86001CP-AB.DEP	N/A	C87B02B-B.ADA	P
A83C01J.ADA	P	B86001CQ-AB.DEP	N/A	C87B03A-B.ADA	P
A85007D-B.ADA	P	B86001CR-AB.DEP	P	C87B04A-B.ADA	P
A85013B-B.ADA	P	B86001CS-AB.DEP	P	C87B04B-B.ADA	P
B83A01A-AB.ADA	P	B86001D0M-AB.TST	P	C87B04C-B.ADA	P
B83A01B-B.ADA	P	B86001DT-AB.TST	N/A	C87B05A-B.ADA	P
B83A01C.ADA	P	B87B23B-B.ADA	P	C87B06A-B.ADA	P
B83A05A-AB.ADA	P	B87B48C-B.ADA	P	C87B07A-B.ADA	P
B83A06B-B.ADA	P	C83B02A.ADA	P	C87B07B-B.ADA	P
B83A06H-B.ADA	P	C83B02B.ADA	P	C87B07C-B.ADA	P
B83B01A-AB.ADA	P	C83C01B.ADA	P	C87B07D-B.ADA	P
B83B02C.ADA	P	C83E02A.ADA	P	C87B07E-B.ADA	P
B83C01A-AB.ADA	P	C83E02B.ADA	P	C87B08A-B.ADA	P
B83C02A.ADA	P	C83E03A.ADA	P	C87B09A-B.ADA	P
B83E02C-B.ADA	P	C83E04A.ADA	P	C87B09B-B.ADA	P
B83F02A.ADA	P	C83F01A.ADA	P	C87B09C-B.ADA	P
B83F02B.ADA	P	C83F01B.ADA	P	C87B10A-B.ADA	P
B83F04A-AB.ADA	P	C83F01C.ADA	P	C87B11A-B.ADA	P
B84001A-AB.ADA	P	C83F01C0	C	C87B11B-B.ADA	P
B84002B-B.ADA	P	C83F01C1	C	C87B13A-B.ADA	P
B84004A-B.ADA	P	C83F01C2M	C	C87B14A-B.ADA	P
B84006A-B.ADA	P	C83F01D.ADA	P	C87B14B-B.ADA	P
B85007B-B.ADA	P	C83F01D0M.ADA	C	C87B14C-B.ADA	P
B85007C-B.ADA	P	C83F01D1.ADA	C	C87B14D-B.ADA	P
B85012A-B.ADA	P	C83F03A.ADA	P	C87B15A-B.ADA	P
B85013C-B.ADA	P	C83F03B.ADA	P	C87B16A-B.ADA	P
B85015A-B.ADA	P	C83F03C.ADA	P	C87B17A-B.ADA	P
B86001A-AB.ADA	P	C83F03C0	C	C87B18A-B.ADA	P
B86001A0	C	C83F03C1	C	C87B18B-B.ADA	P
B86001A1M	C	C83F03C2M	C	C87B19A-B.ADA	P
B86001B0M-B.ADA	P	C83F03D.ADA	P	C87B23A-B.ADA	P
B86001BA-B.ADA	P	C83F03D0M	C	C87B24A-B.ADA	P
B86001BB-B.ADA	P	C83F03D1	C	C87B24B-B.ADA	P
B86001BC-B.ADA	P	C84002A-B.ADA	P	C87B26B-B.ADA	P
B86001BD-B.ADA	P	C85007A-B.ADA	P	C87B27A-B.ADA	P
B86001BE-B.ADA	P	C85007E-B.ADA	P	C87B28A-B.ADA	P
B86001BF-B.ADA	P	C85013A-B.ADA	P	C87B29A-B.ADA	P
B86001BG-B.ADA	P	C86001E-B.ADA	P	C87B30A-B.ADA	P
B86001BH-B.ADA	P	C86001F-B.DEP	P	C87B31A-B.ADA	P
B86001BI-B.ADA	P	C86002A.ADA	P	C87B32A-B.ADA	P
B86001BJ-B.ADA	P	C86002A0	C	C87B33A-B.ADA	P

C87B34A-B.ADA	P	C87B37E-B.ADA	P	C87B45C-B.ADA	P
C87B34B-B.ADA	P	C87B37F-B.ADA	P	C87B47A-B.ADA	P
C87B34C-B.ADA	P	C87B38A-B.ADA	P	C87B48A-B.ADA	P
C87B35A-B.ADA	P	C87B39A-B.ADA	P	C87B48B-B.ADA	P
C87B35B-B.ADA	P	C87B40A-B.ADA	P	C87B54A-B.ADA	P
C87B35C-B.ADA	P	C87B41A-B.ADA	P	C87B57A-B.ADA	P
C87B37A-B.ADA	P	C87B42A-B.ADA	P	C87B62A-B.DEP	P
C87B37B-B.ADA	P	C87B43A-B.ADA	P	C87B62B-B.DEP	N/A
C87B37C-B.ADA	P	C87B44A-B.ADA	P	C87B62C-B.DEP	P
C87B37D-B.ADA	P	C87B45A-B.ADA	P		

Chapter 9

A91002M-B.ADA	P	B950ADA-B.ADA	P	C910BDA-B.ADA	P
A95005A.ADA	P	B950AFA-B.ADA	P	C910BDB-B.ADA	P
A97106A-AB.ADA	P	B950AHA-B.ADA	P	C910BDC-B.ADA	P
B91001A-AB.ADA	P	B950AJA-B.ADA	P	C92002A.ADA	P
B91001B-AB.ADA	P	B950BAA-B.ADA	P	C92003A.ADA	P
B91001C-AB.ADA	P	B950DHA-B.ADA	P	C920AJA-B.ADA	P
B91001D-AB.ADA	P	B96002A-B.ADA	P	C920BAA-B.ADA	P
B91001E-AB.ADA	P	B96003A-B.ADA	P	C920BBA-B.ADA	P
B91001F-AB.ADA	P	B97101A-AB.ADA	P	C920BIA-B.ADA	P
B91001G-B.ADA	P	B97101B-AB.ADA	P	C93001A-B.ADA	P
B91002A-B.ADA	P	B97101C-AB.ADA	P	C93002A-B.ADA	P
B91002B-B.ADA	P	B97101D-AB.ADA	P	C93003A-B.ADA	P
B91002C-B.ADA	P	B97101E-AB.ADA	P	C93005A-B.ADA	P
B91002D-B.ADA	P	B97102A-AB.ADA	P	C93005B-B.ADA	W
B91002E-B.ADA	P	B97102B-AB.ADA	P	C93005C-B.ADA	W
B91002F-B.ADA	P	B97102C-AB.ADA	P	C93006A-AB.ADA	P
B91002G-B.ADA	P	B97102D-AB.ADA	P	C93007B-B.ADA	W
B91002H-B.ADA	P	B97102E-AB.ADA	P	C930ABA-B.ADA	P
B91002I-B.ADA	P	B97102F-AB.ADA	P	C930AEA-B.ADA	P
B91002J-B.ADA	P	B97102G-AB.ADA	P	C930AFA-B.ADA	P
B91002K-B.ADA	P	B97102H-AB.ADA	P	C930AJA-B.ADA	P
B91002L-B.ADA	P	B97102I-AB.ADA	P	C930BAA-B.ADA	P
B91003A-AB.ADA	P	B97103A-AB.ADA	P	C94001A-B.ADA	P
B91004A-B.ADA	P	B97103B-AB.ADA	P	C94002A-B.ADA	P
B910ABA-B.ADA	P	B97103D-AB.ADA	P	C94002B-B.ADA	P
B910ACA-B.ADA	P	B97103E-AB.ADA	P	C94003A-B.ADA	P
B910AEA-B.ADA	P	B97104A-AB.ADA	P	C94004A-B.ADA	P
B910BCA-B.ADA	P	B97104B-AB.ADA	P	C94004B-B.ADA	P
B920ACA-B.ADA	P	B97104C-AB.ADA	P	C94004C-B.ADA	P
B920BDA-B.ADA	P	B97104D-AB.ADA	P	C94005A-B.ADA	P
B920BJA-B.ADA	P	B97104E-AB.ADA	P	C94005B-B.ADA	P
B95001A.ADA	P	B97104F-AB.ADA	P	C94006A-B.ADA	P
B95001B-AB.ADA	P	B97104G-AB.ADA	P	C94007A-B.ADA	P
B95002A.ADA	P	B97107A-AB.ADA	P	C94007B-B.ADA	P
B95004A-AB.ADA	P	B97108A-AB.ADA	P	C94020A-B.ADA	P
B95004B-AB.ADA	P	B97108B-AB.ADA	P	C94021A-B.ADA	P
B95006A.ADA	P	B97109A-AB.ADA	P	C940ABA-B.ADA	P
B95006B-AB.ADA	P	B97110A-AB.ADA	P	C940ACA-B.ADA	P
B95006C-AB.ADA	P	B97110B-AB.ADA	P	C940ACB-B.ADA	P
B95006D-AB.ADA	P	B97111A-AB.ADA	P	C940ADA-B.ADA	P
B95007A-AB.ADA	P	B99001A-AB.ADA	P	C940AGA-B.ADA	P
B95007B-AB.ADA	P	B99001B-B.ADA	P	C940AGB-B.ADA	P
B95020A-B.ADA	P	B99002A-B.ADA	P	C940AHA-B.ADA	P
B95020B-B.ADA	P	B99002B-B.ADA	P	C940AIA-B.ADA	P
B95020B0	C	B99002C-B.ADA	P	C940BAA-B.ADA	P
B95020B1	C	B99003A-AB.ADA	P	C940BBA-B.ADA	P
B95020B2M	C	B9A001A-AB.ADA	P	C95008A-AB.ADA	P
B950ABA-B.ADA	P	B9A001B-AB.ADA	P	C95009A-B.ADA	P
B950ABB-B.ADA	P	C900ACA-B.ADA	P	C95009B.ADA	P
B950ACA-B.ADA	P	C910AHA-B.ADA	P	C95010A.ADA	P

C95011A.ADA	P	C96005A-B.ADA	P	C97203A-AB.ADA	P
C95012A-B.ADA	P	C96005B-B.TST	N/A	C97203B-AB.ADA	P
C95013A-B.ADA	P	C96005C-B.TST	P	C97204A-B.ADA	P
C95021A-B.ADA	P	C96005D-B.ADA	P	C97303A-AB.ADA	P
C95022A-B.ADA	P	C96005E-B.ADA	P	C97303B-AB.ADA	P
C95022B-B.ADA	P	C96006A-B.ADA	P	C97304A-B.ADA	P
C950ACB-B.ADA	P	C96007A-B.ADA	P	C9A003A-B.ADA	P
C950BGA-B.ADA	P	C96008A-B.ADA	P	C9A004A-B.ADA	P
C950BHA-B.ADA	P	C96008B-B.ADA	P	C9A005A-B.ADA	P
C950BJA-B.ADA	P	C97113A-B.ADA	P	C9A006A-B.ADA	P
C950CAA-B.ADA	P	C97114A-B.ADA	P	C9A007A-B.ADA	P
C950CBA-B.ADA	P	C97115A-B.ADA	P	C9A009A-B.ADA	P
C950CHA-B.ADA	P	C97201A-AB.ADA	P	C9A009B-B.ADA	P
C950CHC-B.ADA	P	C97201D-AB.ADA	P	C9A009C-B.ADA	P
C950DEA-B.ADA	P	C97201E-AB.ADA	P	C9A009D-B.ADA	P
C950DEB-B.ADA	P	C97201G-AB.ADA	P	C9A009E-B.ADA	P
C950DGA-B.ADA	P	C97201H-AB.ADA	P	C9A009F-B.ADA	P
C96001A-B.ADA	P	C97201X-AB.ADA	P	C9A009G-B.ADA	P
C96004A-B.ADA	P	C97202A-AB.ADA	P	C9A009H-B.ADA	P

Chapter 10

BA1011B-B.ADA	P	BA1101B3	C	BA3001E-AB.ADA	P
BA1011B0M	C	BA1101B4	C	BA3001E0M	C
BA1011B1	C	BA1101C-B.ADA	P	BA3001E1	C
BA1011B2	C	BA1101C0	C	BA3001E2	C
BA1011B3	C	BA1101C1	C	BA3001E3	C
BA1011B4	C	BA1101C2M	C	BA3001F-AB.ADA	P
BA1011B5	C	BA1101C3	C	BA3001F0M	C
BA1011B6	C	BA1101C4	C	BA3001F1	C
BA1011B7	C	BA1101C5	C	BA3001F2	C
BA1011B8	C	BA1101D-AB.ADA	P	BA3001F3	C
BA1011C-B.ADA	P	BA1101E-B.ADA	P	BA3006A-B.ADA	P
BA1011C0M	C	BA1101F-B.ADA	P	BA3006A0	C
BA1011C1	C	BA1101G-B.ADA	P	BA3006A1	C
BA1011C2	C	BA1101H-B.ADA	P	BA3006A2	C
BA1011C3	C	BA1101H0	C	BA3006A3	C
BA1011C4	C	BA1101H1M	C	BA3006A4	C
BA1011C5	C	BA2001A-AB.ADA	P	BA3006A5	C
BA1011C6	C	BA2001B-AB.ADA	P	BA3006A6M	C
BA1011C7	C	BA2001C-AB.ADA	P	BA3006B-B.ADA	P
BA1011C8	C	BA2001D-AB.ADA	P	BA3006B0	C
BA1020A-B.ADA	P	BA2001E-AB.ADA	P	BA3006B1	C
BA1020A0M	C	BA2001E0M	C	BA3006B2	C
BA1020A1	C	BA2001E1	C	BA3006B3	C
BA1020A2	C	BA2001E2	C	BA3006B4M	C
BA1020A3	C	BA2001F-AB.ADA	P	BA3007A-B.ADA	P
BA1020A4	C	BA2001F0M	C	BA3007A0	C
BA1020A5	C	BA2001F1	C	BA3007A1	C
BA1020A6	C	BA2001F2	C	BA3007A2	C
BA1020A7	C	BA2001G-AB.ADA	P	BA3007A3	C
BA1020A8	C	BA2001G0M	C	BA3007A4	C
BA1020B-B.ADA	P	BA2001G1	C	BA3007A5M	C
BA1020B0	C	BA2003B-AB.ADA	P	BA3007B-B.ADA	P
BA1020B1	C	BA2003B0M	C	BA3007B0	C
BA1020B2	C	BA2003B1	C	BA3007B1	C
BA1020B3	C	BA2013A-B.ADA	P	BA3007B2	C
BA1020B4	C	BA2013B-B.ADA	P	BA3007B3	C
BA1020B5	C	BA3001A-AB.ADA	P	BA3007B4	C
BA1020B6M	C	BA3001A0M	C	BA3007B5	C
BA1020C-B.ADA	P	BA3001A1	C	BA3007B6	C
BA1020C0M	C	BA3001A2	C	BA3007B7	C
BA1020C1	C	BA3001A3	C	BA3007B8M	C
BA1020C2	C	BA3001B.ADA	P	BA3008A-B.ADA	P
BA1020C3	C	BA3001B0M	C	BA3008A0	C
BA1020C4	C	BA3001B1	C	BA3008A1	C
BA1020C5	C	BA3001C-AB.ADA	P	BA3008A2	C
BA1101A-AB.ADA	P	BA3001C0M	C	BA3008A3	C
BA1101B-B.ADA	P	BA3001C1	C	BA3008A4	C
BA1101B0M	C	BA3001D-AB.ADA	P	BA3008A5M	C
BA1101B1	C	BA3001D0M	C	BA3008B-B.ADA	P
BA1101B2	C	BA3001D1	C	BA3008B0	C

BA3008B1	C	CA1011A6M	W	CA1108A-B.ADA	W
BA3008B2	C	CA1012A-B.DEP	P	CA1108B-B.ADA	W
BA3008B3	C	CA1012A0	C	CA2001H-B.ADA	P
BA3008B4	C	CA1012A1	C	CA2001H0	C
BA3008B5	C	CA1012A2	C	CA2001H1	C
BA3008B6M	C	CA1012A3	C	CA2001H2	C
BA3013A-B.ADA	P	CA1012A4M	C	CA2001H3M	C
BA3013A0	C	CA1012B-B.ADA	P	CA2002A-B.ADA	P
BA3013A1	C	CA1012B0	C	CA2002A0M	C
BA3013A2	C	CA1012B2	C	CA2002A1	C
BA3013A3	C	CA1012B4M	C	CA2002A2	C
BA3013A4	C	CA1013A-B.ADA	P	CA2003A-AB.ADA	P
BA3013A5	C	CA1013A0	C	CA2003A0M	C
BA3013A6	C	CA1013A1	C	CA2003A1	C
BA3013A7M	C	CA1013A2	C	CA2004A-AB.ADA	P
CA1002A-B.ADA	P	CA1013A3	C	CA2004A0M	C
CA1002A0	C	CA1013A4	C	CA2004A1	C
CA1002A1	C	CA1013A5	C	CA2004A2	C
CA1002A2	C	CA1013A6M	C	CA2004A3	C
CA1002A3M	C	CA1014A-AB.ADA	P	CA2004A4	C
CA1002A4	C	CA1014A0M	C	CA2007A-AB.ADA	P
CA1002A5	C	CA1014A1	C	CA2007A0M	C
CA1002A6	C	CA1014A2	C	CA2007A1	C
CA1002A7	C	CA1014A3	C	CA2007A2	C
CA1002A8	C	CA1022A-B.ADA	P	CA2007A3	C
CA1002A9	C	CA1022A0	C	CA2008A-B.ADA	P
CA1003A-AB.ADA	P	CA1022A1	C	CA2008A0M	C
CA1003B-AB.ADA	W	CA1022A2	C	CA2008A1	C
CA1004A-AB.ADA	P	CA1022A3	C	CA2008A2	C
CA1005A-AB.ADA	P	CA1022A4	C	CA2009A-B.DEP	P
CA1006A-AB.ADA	P	CA1022A5	C	CA2009B-B.DEP	W
CA1007A-AB.ADA	P	CA1022A6M	C	CA2009C-B.DEP	P
CA1007A0	C	CA1102A-B.ADA	P	CA2009C0M	C
CA1007A1M	C	CA1102A0	C	CA2009C1	C
CA1008A-AB.ADA	P	CA1102A1	C	CA2009D-B.DEP	P
CA1008A0	C	CA1102A2M	C	CA2009E-B.DEP	W
CA1008A1M	C	CA1105A-B.ADA	P	CA2009F-B.DEP	W
CA1009A-AB.ADA	P	CA1105A0	C	CA2009F0M	W
CA1009A0	C	CA1105A1M	C	CA2009F1	W
CA1009A1	C	CA1105B-B.ADA	P	CA3002A-B.ADA	P
CA1009A2	C	CA1105B0	C	CA3002A0	C
CA1009A3	C	CA1105B1	C	CA3002A1	C
CA1009A4M	C	CA1105B2	C	CA3002A2M	C
CA1011A-B.ADA	W	CA1105B3M	C	CA3002A3	C
CA1011A0	W	CA1105B4	C	CA3006C-B.ADA	P
CA1011A1	W	CA1105B5	C	CA3006C0	C
CA1011A2	W	CA1107A.ADA	P	CA3006C1	C
CA1011A3	W	CA1107A0	C	CA3006C2	C
CA1011A4	W	CA1107A1M	C	CA3006C3	C
CA1011A5	W	CA1107A2	C	CA3006C4	C

CA3006C5M	C	CA5002B6	C	LA3004A2	N/A
CA3006D-B.ADA	P	CA5002B7M	C	LA3004A3	N/A
CA3006D0	C	CA5003A-B.ADA	P	LA3004A4	N/A
CA3006D1	C	CA5003A0	C	LA3004A5	N/A
CA3006D2	C	CA5003A1	C	LA3004A6M	N/A
CA3006D3M	C	CA5003A2	C	LA3004B-B.ADA	N/A
CA3006E-B.ADA	P	CA5003A3	C	LA3004B0	N/A
CA3006E0	C	CA5003A4	C	LA3004B1	N/A
CA3006E1	C	CA5003A5	C	LA3004B2	N/A
CA3006E2	C	CA5003A6M	C	LA3004B3	N/A
CA3006E3	C	CA5003B-B.ADA	P	LA3004B4	N/A
CA3006E4	C	CA5003B0	C	LA3004B5	N/A
CA3006E5	C	CA5003B1	C	LA3004B6M	N/A
CA3006E6M	C	CA5003B2	C	LA5001A-B.ADA	P
CA5002A-B.ADA	P	CA5003B3	C	LA5001A0	C
CA5002B-B.ADA	P	CA5003B4	C	LA5001A1	C
CA5002B0	C	CA5003B5M	C	LA5001A2	C
CA5002B1	C	CA5004A-B.ADA	P	LA5001A3	C
CA5002B2	C	CA5004B-B.ADA	P	LA5001A4	C
CA5002B3	C	LA3004A-AB.ADA	N/A	LA5001A5	C
CA5002B4	C	LA3004A0	N/A	LA5001A6	C
CA5002B5	C	LA3004A1	N/A	LA5001A7M	C

Chapter 11

BB2001A-AB.ADA	P	CB1003A-AB.ADA	P	CB4003A-AB.ADA	P
BB2002A-AB.ADA	P	CB1004A-AB.ADA	P	CB4004A-B.ADA	P
BB2003A-AB.ADA	P	CB2004A-B.ADA	P	CB4005A-AB.ADA	P
BB2003B-AB.ADA	P	CB2005A-B.ADA	P	CB4006A-B.ADA	P
BB2003C-AB.ADA	P	CB2006A-AB.ADA	P	CB4008A-AB.ADA	P
BB3001A-B.ADA	P	CB2007A-AB.ADA	P	CB4009A-AB.ADA	P
BB3002A-AB.ADA	P	CB3003A-B.ADA	P	CB5001A-B.ADA	P
BB3005A-AB.ADA	P	CB3004A-AB.ADA	P	CB5001B-B.ADA	P
CB1001A-B.ADA	P	CB4001A-AB.ADA	P		
CB1002A-B.ADA	P	CB4002A-AB.ADA	P		

Chapter 12

BC1001A-B.ADA	P	BC2001B-AB.ADA	P	BC3205D1M	W
BC1002A-B.ADA	P	BC2001C-AB.ADA	P	BC3205D2	W
BC1008A-AB.ADA	P	BC20ABA-B.ADA	P	BC3205E-B.ADA	P
BC1008B-AB.ADA	P	BC3002A-AB.ADA	P	BC3205F-B.ADA	P
BC1008C-AB.ADA	P	BC3002B-AB.ADA	P	BC3220B-B.ADA	P
BC1009A-AB.ADA	P	BC3002C-AB.ADA	P	BC32ABA-B.ADA	P
BC1011A-AB.ADA	P	BC3002D-AB.ADA	P	BC32ADA-B.ADA	P
BC1011B-AB.ADA	P	BC3002E-AB.ADA	P	BC3301A-AB.ADA	P
BC1012A-AB.ADA	P	BC3003A-AB.ADA	P	BC3301B-AB.ADA	P
BC1013A-B.ADA	W	BC3003B-AB.ADA	P	BC3302A-AB.ADA	P
BC10ABA-B.ADA	P	BC3005A-AB.ADA	P	BC3302B-AB.ADA	P
BC10ABB-B.ADA	P	BC3006A-AB.ADA	P	BC3303A-AB.ADA	P
BC10ACA-B.ADA	P	BC3009A-B.ADA	P	BC3304A-AB.ADA	P
BC10ADA-B.ADA	P	BC3009B-B.ADA	P	BC33ABA-B.ADA	P
BC10AEA-B.ADA	P	BC3009C-B.ADA	P	BC33ACA-B.ADA	P
BC10AEB-B.ADA	P	BC3011B-B.ADA	P	BC33ADA-B.ADA	P
BC10AEC-B.ADA	P	BC3011C-AB.ADA	P	BC33AEA-B.ADA	P
BC10AED-B.ADA	P	BC3013A-AB.ADA	P	BC3401A-AB.ADA	P
BC10AFA-B.ADA	P	BC3018A-B.ADA	P	BC3401B-AB.ADA	P
BC10AGA-B.ADA	P	BC30ABA-B.ADA	P	BC3402A-AB.ADA	P
BC1101A-AB.ADA	P	BC30ACA-B.ADA	P	BC3402B-AB.ADA	P
BC1102A-B.ADA	P	BC3101A-B.ADA	P	BC3403A-AB.ADA	P
BC1103A-B.ADA	P	BC3101B-B.ADA	P	BC3403B-AB.ADA	P
BC1104A-B.ADA	P	BC3102A-B.ADA	P	BC3403C-AB.ADA	P
BC1104B-B.ADA	P	BC3102B-B.ADA	P	BC3404A-AB.ADA	P
BC1106A-AB.ADA	P	BC3103A-AB.ADA	P	BC3404B-B.ADA	P
BC1107A-B.ADA	P	BC3103B-AB.ADA	P	BC3404C-AB.ADA	P
BC11ABA-B.ADA	P	BC31ABA-B.ADA	P	BC3404D-AB.ADA	P
BC11ACA-B.ADA	P	BC31ACA-B.ADA	P	BC3404E-AB.ADA	P
BC1201A-AB.ADA	P	BC31ADA-B.ADA	P	BC3404F-AB.ADA	P
BC1201B-AB.ADA	P	BC3201A-B.ADA	P	BC3405A-AB.ADA	P
BC1201C-AB.ADA	P	BC3201B-AB.ADA	P	BC3405B-B.ADA	W
BC1201D-AB.ADA	P	BC3201C-B.ADA	P	BC3405D-AB.ADA	P
BC1202A-AB.ADA	P	BC3202A-B.ADA	P	BC3405E-AB.ADA	P
BC1202B-AB.ADA	P	BC3202B-B.ADA	P	BC3405F-AB.ADA	P
BC1202C-AB.ADA	P	BC3202C-B.ADA	P	BC3501A-AB.ADA	P
BC1202D-AB.ADA	P	BC3203B-B.ADA	P	BC3501B-AB.ADA	P
BC1203A-AB.ADA	P	BC3204A-B.ADA	W	BC3501C-AB.ADA	P
BC1207A-B.ADA	P	BC3204B-B.ADA	W	BC3501D-AB.ADA	P
BC1226A-B.ADA	P	BC3204C-B.ADA	W	BC3501E-AB.ADA	P
BC12ABA-B.ADA	P	BC3204C0	W	BC3501F-AB.ADA	P
BC12ACA-B.ADA	P	BC3204C1M	W	BC3501G-AB.ADA	P
BC12ACB-B.ADA	P	BC3204C2	W	BC3501H-AB.ADA	P
BC1303A-AB.ADA	P	BC3204D-B.ADA	W	BC3501I-AB.ADA	P
BC1303B-AB.ADA	P	BC3204E-B.ADA	P	BC3501J-AB.ADA	P
BC1303C-AB.ADA	P	BC3205A-B.ADA	W	BC3501K-AB.ADA	P
BC1303D-AB.ADA	P	BC3205B-B.ADA	W	BC3502A-AB.ADA	P
BC1303E-AB.ADA	P	BC3205C-B.ADA	W	BC3502B-AB.ADA	P
BC1306A-B.ADA	P	BC3205D-B.ADA	W	BC3502C-AB.ADA	P
BC13ABA-B.ADA	P	BC3205D0	W	BC3502D-AB.ADA	P

BC3502E-AB.ADA	P	CC1305B-AB.ADA	P	CC3407A-AB.ADA	P
BC3502F-AB.ADA	P	CC1307A-AB.ADA	P	CC3407B-AB.ADA	P
BC3502G-AB.ADA	P	CC1308A-AB.ADA	P	CC3407C-AB.ADA	P
BC3502H-AB.ADA	P	CC1310A-AB.ADA	P	CC3407D-AB.ADA	P
BC3502I-AB.ADA	P	CC2002A-AB.ADA	P	CC3407E-AB.ADA	P
BC3502J-AB.ADA	P	CC3004A-B.ADA	P	CC3407F-AB.ADA	P
BC3502K-AB.ADA	P	CC3007A-AB.ADA	P	CC3408A-AB.ADA	P
BC3502L-AB.ADA	P	CC3011A-B.ADA	P	CC3408B-AB.ADA	P
BC3502M-AB.ADA	P	CC3011D-B.ADA	P	CC3408C-AB.ADA	P
BC3502N-AB.ADA	P	CC3012A-AB.ADA	P	CC3408D-B.ADA	P
BC3502O-AB.ADA	P	CC3120A-AB.ADA	P	CC3504A-B.ADA	P
BC3503A-B.ADA	P	CC3120B-B.ADA	P	CC3504B-B.ADA	P
BC3503B-B.ADA	P	CC3125A-B.ADA	P	CC3504C-B.ADA	P
BC3503C-B.ADA	P	CC3203A-B.ADA	P	CC3504D-B.ADA	P
BC3503D-B.ADA	P	CC3208A-AB.ADA	P	CC3504E-B.ADA	P
BC3503F-B.ADA	P	CC3208B-AB.ADA	P	CC3504F-B.ADA	P
CC1004A-AB.ADA	P	CC3305A-AB.ADA	P	CC3504G-B.ADA	P
CC1010A-AB.ADA	P	CC3305B-AB.ADA	P	CC3504H-B.ADA	P
CC1010B-AB.ADA	P	CC3305C-AB.ADA	P	CC3504I-B.ADA	P
CC1204A-B.ADA	P	CC3305D-AB.ADA	P	CC3504J-B.ADA	P
CC1220A-B.ADA	P	CC3406A-AB.ADA	P	CC3504K-B.ADA	P
CC1301A-B.ADA	P	CC3406B-AB.ADA	P	CC3601C-AB.ADA	P
CC1302A-AB.ADA	P	CC3406C-AB.ADA	P	CC3602A-AB.ADA	P
CC1304A-AB.ADA	P	CC3406D-B.ADA	P		

Chapter 14

AE2101A-B.ADA	P	CE2111A-B.ADA	N/A	CE3115A-B.ADA	N/A
AE2101B-B.ADA	P	CE2111B-B.ADA	N/A	CE3201A-B.ADA	P
AE2101C-B.DEP	P	CE2111C-B.ADA	N/A	CE3202A-B.ADA	P
AE2101D-B.ADA	P	CE2111D-B.ADA	N/A	CE3203A-B.ADA	N/A
AE3101A-B.ADA	P	CE2201A-B.ADA	N/A	CE3206A-B.ADA	P
AE3702A-B.ADA	P	CE2201B-B.ADA	N/A	CE3208A-B.ADA	P
AE3709A-B.ADA	P	CE2201C-B.ADA	N/A	CE3301A-B.ADA	P
BE2101E-B.ADA	P	CE2201D-B.DEP	P	CE3301B-B.ADA	N/A
BE2112A-B.ADA	P	CE2201E-B.DEP	P	CE3301C-B.ADA	P
BE2112B-B.ADA	P	CE2201F-B.ADA	P	CE3302A-B.ADA	P
BE2112C-B.ADA	P	CE2202A-B.ADA	N/A	CE3303A-B.ADA	P
BE2114A-B.ADA	P	CE2204A-B.ADA	P	CE3305A-B.ADA	N/A
BE2208A-B.ADA	P	CE2204B-B.ADA	P	CE3402A-B.ADA	P
BE3001A-B.ADA	P	CE2210A-B.ADA	P	CE3402B-B.ADA	N/A
BE3002A-B.ADA	P	CE2401A-B.ADA	N/A	CE3402C-B.ADA	N/A
BE3002E-B.ADA	P	CE2401B-B.ADA	N/A	CE3402D-B.ADA	P
BE3105A-B.ADA	P	CE2401C-B.ADA	N/A	CE3402E-B.ADA	P
BE3205A-B.ADA	P	CE2401D-B.DEP	N/A	CE3403A-B.ADA	P
BE3501A-B.ADA	P	CE2401E-B.ADA	N/A	CE3403B-B.ADA	P
BE3606C-B.ADA	P	CE2401F-B.ADA	N/A	CE3403C-B.ADA	P
BE3703A-B.ADA	P	CE2402A-B.ADA	P	CE3403D-B.ADA	P
BE3802A-B.ADA	P	CE2404A-B.ADA	N/A	CE3403E-B.ADA	P
BE3803A-B.ADA	P	CE2405B-B.ADA	N/A	CE3403F-B.ADA	P
BE3902A-B.ADA	P	CE2406A-B.ADA	N/A	CE3404A-B.ADA	P
BE3903A-B.ADA	P	CE2407A-B.ADA	P	CE3404B-B.ADA	P
CE2102A-B.ADA	P	CE2408A-B.ADA	N/A	CE3404C-B.ADA	P
CE2102B-B.ADA	P	CE2409A-B.ADA	N/A	CE3405A-B.ADA	N/A
CE2102C-B.TST	P	CE2410A-B.ADA	N/A	CE3405B-B.ADA	P
CE2102D-B.ADA	N/A	CE3002B-B.TST	P	CE3405C-B.ADA	P
CE2102E-B.ADA	N/A	CE3002C-B.TST	P	CE3405D-B.ADA	N/A
CE2102F-B.ADA	P	CE3002D-B.ADA	P	CE3406A-B.ADA	P
CE2102G-B.ADA	P	CE3002F-B.ADA	P	CE3406B-B.ADA	P
CE2103A-B.TST	N/A	CE3102A-B.ADA	P	CE3406C-B.ADA	P
CE2103B-B.TST	N/A	CE3102B-B.TST	N/A	CE3406D-B.ADA	P
CE2104A-B.ADA	N/A	CE3103A-B.ADA	P	CE3407A-B.ADA	P
CE2104B-B.ADA	N/A	CE3104A-B.ADA	P	CE3407B-B.ADA	P
CE2105A-B.ADA	P	CE3107A-B.TST	N/A	CE3407C-B.ADA	P
CE2106A-B.ADA	P	CE3108A-B.ADA	N/A	CE3408A-B.ADA	P
CE2107A-B.ADA	N/A	CE3108B-B.ADA	N/A	CE3408B-B.ADA	P
CE2107B-B.ADA	N/A	CE3109A-B.ADA	P	CE3408C-B.ADA	P
CE2107C-B.ADA	P	CE3110A-B.ADA	P	CE3409A-B.ADA	P
CE2107D-B.ADA	P	CE3111A-B.ADA	P	CE3409B-B.ADA	P
CE2107E-B.ADA	P	CE3111B-B.ADA	P	CE3409C-B.ADA	N/A
CE2108A-B.ADA	P	CE3111C-B.ADA	P	CE3409D-B.ADA	P
CE2108B-B.ADA	P	CE3111D-B.ADA	P	CE3409E-B.ADA	P
CE2108C-B.ADA	P	CE3111E-B.ADA	P	CE3409F-B.ADA	P
CE2108D-B.ADA	P	CE3112A-B.ADA	P	CE3410A-B.ADA	P
CE2109A-B.ADA	P	CE3112B-B.ADA	N/A	CE3410B-B.ADA	P
CE2110A-B.ADA	N/A	CE3114A-B.ADA	N/A	CE3410C-B.ADA	N/A
CE2110B-B.ADA	N/A	CE3114B-B.ADA	N/A	CE3410D-B.ADA	P

CE3410E-B.ADA	P	CE3704B-B.ADA	P	CE3804M-B.ADA	N/A
CE3410F-B.ADA	P	CE3704C-B.ADA	P	CE3805A-B.ADA	P
CE3411A-B.ADA	P	CE3704D-B.ADA	P	CE3805B-B.ADA	P
CE3411C-B.ADA	P	CE3704E-B.ADA	P	CE3806A-B.ADA	N/A
CE3412A-B.ADA	P	CE3704F-B.ADA	N/A	CE3806C-B.ADA	P
CE3412C-B.ADA	P	CE3704M-B.ADA	W	CE3806D-B.ADA	N/A
CE3413A-B.ADA	P	CE3704N-B.ADA	N/A	CE3806E-B.ADA	N/A
CE3413C-B.ADA	P	CE3704O-B.ADA	P	CE3809A-B.ADA	P
CE3601A-B.ADA	P	CE3706C-B.ADA	P	CE3809B-B.ADA	P
CE3602A-B.ADA	P	CE3706D-B.ADA	P	CE3810A-B.ADA	P
CE3602B-B.ADA	P	CE3706F-B.ADA	N/A	CE3901A-B.ADA	P
CE3602C-B.ADA	P	CE3706G-B.ADA	P	CE3905A-B.ADA	P
CE3602D-B.ADA	P	CE3707A-B.ADA	P	CE3905B-B.ADA	P
CE3603A-B.ADA	W	CE3708A-B.ADA	P	CE3905C-B.ADA	P
CE3604A-B.ADA	W	CE3801A-B.ADA	P	CE3905L-B.ADA	N/A
CE3605A-B.ADA	P	CE3804A-B.ADA	P	CE3906A-B.ADA	N/A
CE3605B-B.ADA	P	CE3804B-B.ADA	P	CE3906B-B.ADA	P
CE3605C-B.ADA	P	CE3804C-B.ADA	N/A	CE3906C-B.ADA	N/A
CE3605D-B.ADA	N/A	CE3804D-B.ADA	P	CE3906D-B.ADA	P
CE3605E-B.ADA	N/A	CE3804E-B.ADA	P	CE3906E-B.ADA	N/A
CE3606A-B.ADA	N/A	CE3804F-B.ADA	P	CE3906F-B.ADA	N/A
CE3606B-B.ADA	N/A	CE3804G-B.ADA	N/A	CE3907A-B.ADA	P
CE3701A-B.ADA	P	CE3804I-B.ADA	N/A	CE3908A-B.ADA	P
CE3704A-B.ADA	P	CE3804K-B.ADA	N/A	EE3102C-B.ADA	N/A

Validation Summary Report
Complete List of Tests and Results

END OF DOCUMENT

END

DTIC

5-86